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**DRAFT REGULATORY EVALUATION,
INITIAL REGULATORY FLEXIBILITY DETERMINATION,
TRADE IMPACT ASSESSMENT, AND UNFUNDED MANDATES
DETERMINATION**

NOTICE OF PROPOSED RULEMAKING

14 CFR PART 93

**SPECIAL AIR TRAFFIC RULES; WASHINGTON, DC
METROPOLITAN AREA SPECIAL FLIGHT RULES AREA**

**OFFICE OF AVIATION POLICY AND PLANS
OPERATIONS REGULATORY ANALYSIS BRANCH
APO-310**

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TABLE OF CONTENTS

Executive Summary	i
I. Introduction and Background	1
II. Proposal	3
III. Cost of Compliance	5
A. The impact to air traffic	5
1. <i>Staffing Estimates</i>	7
2. <i>Other Costs</i>	11
B. Costs to the airports impacted by the former SFAR 94	18
1. <i>College Park</i>	21
2. <i>Potomac</i>	26
3. <i>Washington Executive/Hyde</i>	30
4. <i>Costs to the Government</i>	54
C. Other DC SFRA/FRZ-related costs	37
1. <i>Costs for pilots</i>	37
2. <i>Costs for small airports</i>	43
IV. Analysis of Benefits	44
V. Comparison of Costs and Benefits	48
VI. Initial Regulatory Flexibility Determination	48
A. Regulatory Flexibility Determination	48
B. Regulatory Flexibility Analysis	51
VII. International Trade Impact Statement	55
VIII. Unfunded Mandates Determination	55
APPENDIX	57

Executive Summary

This regulatory evaluation examines the costs and benefits of a proposed rule to codify current flight restrictions and Notices to Airmen (NOTAM's) for aircraft operating in the vicinity of the Washington, DC Metropolitan area. The FAA is taking this action to assist the Department of Homeland Security and the Department of Defense in completing their mission to protect national assets in the National Capitol region. The results have been a number of NOTAM's and other flight restrictions; this action places all airspace restrictions within the Washington, DC Metropolitan Area in one regulation.

Who is Potentially Affected by this Rulemaking

Private Sector

All operations would have to be transponder equipped when entering the DC Special Federal Rules Area (SFRA) and maintain two-way communications while flying in the DC SFRA. Pilots flying VFR have to file flight plans to fly within the DC SFRA.

There are approximately 150 airports in the DC SFRA. Given the additional requirements that GA pilots face, the FAA is concerned that many of these airports would have fewer operations; in some cases, some of these pilots would fly to alternative, near-by airports just outside of the DC SFRA in place of those just inside the DC SFRA, resulting in an increase in operations for the airports these alternative airports. Included in these airports are two of the three airports affected by the former SFAR 94, Potomac Field Airport and the Washington Executive Airport/Hyde Field Airport.

Government

The Eastern Region Air Traffic Division (AEA) has had to provide additional staff to implement the communications requirements contained in existing NOTAM's covering the DC Air Defense Identification Zone (ADIZ). In particular, this includes additional work for the air traffic control facilities of Potomac Terminal Radar Approach Control (TRACON) and Leesburg Automated Flight Service Station (AFSS) as well as adjacent air traffic control towers and AFSS's.

One of the airports affected by the former SFAR 94, College Park Airport, is owned and partially funded by two Maryland Counties, Montgomery and Prince George's; this airport would be affected by this rulemaking.

Our Cost Assumptions and Sources of Information

In this analysis, the FAA estimated future costs for a 10-year period, from 2004 through 2013. As required by the Office of Management and Budget, the present value of this stream of costs was calculated using a discount factor of 7 percent. All costs in this analysis are in 2002 dollars.

The analysis examined costs in three different areas – the additional air traffic burden, those airports impacted by the former SFAR 94, and other DC SFRA/Flight Restricted Zone (FRZ)-related costs – and each have different assumptions.

The additional air-traffic burden

The FAA calculated the number of additional air traffic staff by looking at air traffic controller availability during the average workweek and during the year. Staffing demands in the future are calculated by using annual growth rates of 1.2% for the TRACON's and 0.5% for the AFSS's. In addition, personnel, compensation, and benefits for a certified professional controller are estimated at \$140,000 and, for an automated flight service station specialist are estimated at \$90,000.

Airports impacted by the former SFAR 94 – College Park, Potomac, and Washington Executive/Hyde

For the three airports impacted by the former SFAR 94, the FAA also used the following assumptions:

- The cost of either a pilot's or an aircraft occupant's time is \$31.46 per hour.
- The per hour cost of operating a piston driven, four seat aircraft is \$64.75.
- The average load factor for a four seat aircraft is 43.7 percent or 1.75 occupants.
- An airport manager's hourly wage, based on each airport's actual cost and revenue streams, is \$45 per hour at College Park, \$42 per hour at Potomac, and \$40 per hour at Washington Executive/Hyde.
- To account for financial losses not explicitly captured by the analysis, twenty percent of lost revenue is added to the estimated cost of operational restrictions for all three airports.
- To compensate for the lack of financial data for Washington Executive Airport/Hyde Field, the average estimated cost of certain operational restrictions for the two other airports is used to estimate the revenue losses.
- The data for the days that each airport was open and operating in 2002 was annualized to help estimate total operations and revenues. This data summed to about 6 ½ months for the College Park and Potomac airports and 4 months for Washington Executive Airport/Hyde Field.

- Hourly costs to the Federal Government include airport inspector (FG-14, \$56.48) and flight service station specialist (\$47.37) and to the state government law enforcement agency employee (\$47.80).
- Revenue is used as the financial indicator of economic costs in lieu of unavailable data on lost profits.
- Local purchases include procurements made by the airport and its tenants and airport sales to tenants, visitors, and local organizations.
- For ground delays, the hourly value of passenger time per operation is \$55.06. The average ground delay varied per airport.
- For in-flight delays, the hourly cost of an in-flight delay is \$119.81. The average flight delay varied per airport.

In addition, the FAA made the following assumptions concerning the number of operations and revenue at these three airports:

- The number of operations, which was annualized from 2002 data, would remain constant at all three airports for the ten years examined by this analysis. In a recent Interim Final Rule, the TSA has allowed transient operations into these airports. However, FAA does not know how many additional aircraft will fly into or out of these airports. Unless a pilot plans on using one of these airports on a regular basis, they probably would not want to go through the vetting process. Thus, the FAA believes that the number of additional new operations would be minimal.
- The FAA does not believe that the recent TSA rule would increase the total number of flights within the SFRA. So while the actual number of flights to the Maryland-3 and to the other airports within the SFRA may change, the total number of flights within the SFRA would not. While the costs estimated and projected for the Maryland-3 and the other airports may change, the total costs related to these operations within the SFRA (in-flight delays, on-the-ground delays, and flight plan processing) would not change.
- Annual revenue, which was also annualized from 2002 data, would remain constant at all three airports for the ten years examined by this analysis. The FAA recognizes that additional transient flights have the potential to boost revenue to each airport, but believes that any potential increase would be small.

Other DC SFRA-related costs

- The FAA assumes that the additional number of flight plans filed in 2004 would be 123,800, growing to 135,000 in 2013; these numbers are net of those needed to be filed for the three airports impacted by the former SFAR 94.

- As above, for ground delays, the hourly value of passenger time per operation is \$55.06, while for in-flight delays, the hourly cost per operation is \$119.81.

Benefits of this Rulemaking

This proposed rule is intended to provide an increased level of safety and security against the threat of airborne terrorist attacks. The primary benefit of the proposal would be enhanced protection for a significant number of government assets and infrastructure in the National Capital Region. The security provisions and flight restrictions contained in this rule are an integral part of the effort to identify and defeat the threat posed by terrorists.

The proposed rule's objective is to reduce the risk that an airborne terrorist attack initiated from an airport situated very close to these national assets. Such an act could entail the delivery of a biological, chemical, radioactive, or conventional explosive weapon via a small general aviation aircraft.

The destruction of the WTC and the Pentagon, along with the costs of the airplanes, the clean up, and economic impacts such as layoffs are among the direct costs of the September 11 terrorist attack. These direct costs summed to between \$49.9 and \$65.7 billion. The negative economic impact of the terrorist attack that this proposed rule seeks to prevent would be some fraction of these costs. There would also be a reduction in tourism in Washington, DC. In 2000, total expenditures on tourism totaled approximately \$10.2 billion that year, or an average of \$531 per person.

In addition, the separation of air traffic is predicated on knowing the intentions of aircraft operating within the controller's airspace. The proposed Washington SFRA requires two way communication, flight plans and operable transponders for pilots to operate in the area. This allows the controllers to know the intentions of all pilots in the area, to monitor the aircraft altitude, and to communicate with each pilot. When a controller knows the intentions of pilots in the sector, and has the ability to communicate with each one, safety is greatly enhanced.

Costs of this Rulemaking

There are three cost-related areas – the additional air traffic burden, costs for those airports impacted by the former SFAR 94, and other DC SFRA/FRZ-related costs.

The additional air-traffic burden

The Eastern Region Air Traffic Division has had additional burdens in maintaining the requested airspace restrictions within the DC SFRA/FRZ. To calculate the costs associated with the DC SFRA/FRZ, the FAA made a comparison using the baseline months of July 2001, 2002, and 2003. Based on the additional workload for 2003, controller staffing has been increased; total

increased staffing costs, over ten years, sum to \$62.12 million (\$43.83 million, discounted). The total number of controllers would increase from 39 in 2004 to 43 in 2013. The increased staffing costs, over ten years, sum to \$62.12 million (\$43.83 million, discounted).

There are additional costs due to additional activities, all centered at the Potomac TRACON, which include additional pilot deviations, additional tracks of interest, increased litigation, and a National Security Special Operations Unit. This increased workload sums to \$122.15 million (\$71.28 million, discounted) over ten years.

Total ten-year costs, to handle the additional air traffic burden, sum to \$184.27 million (\$128.70 million, discounted).

Costs to the airports impacted by the former SFAR 94 – College Park, Potomac, and Washington Executive/Hyde

SFAR 94, enacted February 13, 2002, authorized general aviation operations at College Park Airport, Potomac Airfield, and Washington Hyde Field providing stringent requirements were met. In February 2003, the FAA, in concert with TSA, extended the SFAR 94 for an additional two years. In February 2005, TSA extended the security aspects of these procedures under 49 CFR Part 1562; the airspace restrictions and communications provisions in NOTAM 3/0853 remain under FAA authority. This rulemaking would codify these airspace restrictions and communications provisions..

The FAA was able to obtain limited historical financial and operational data for College Park and Potomac Field Airports for part of their first year under the SFAR. Additional data restrictions, however, limited the analysis of the rule's impact on the Washington Executive Airport/Hyde Field. Thus, the FAA was required to make additional assumptions in doing the analysis for this airport.

College Park Airport - The College Park Airport was opened in 1909 and is the oldest continuously operating airport in the world. With the exception of about 100 annual air taxi operations, the College Park Airport serves a combination of private pilots who use their aircraft to conduct business. The estimate of losses to College Park Airport associated with complying with the operational restrictions in the former SFAR 94 is \$1.62 million for the time examined by this analysis. This annualized revenue loss was increased by a factor of 20% to account for revenues losses not included in the analysis.

The annual airspace restriction cost to the pilots using the College Park Airport sum to \$171,900 and are based on the ground and in-flight delays as well as the time to file flight plans. Complying with the aforementioned airspace and

communications requirements would cost the College Park Airport an estimated \$1.80 million annually.

Potomac Airfield - The Potomac Airfield is a small privately owned airport located in Fort Washington, Maryland. Based on information from the first 8 months of 2002, and assuming that these revenues derived during the period stay the same, the FAA estimates the revenue loss to be \$1.36 million. This annualized revenue loss was increased by a factor of 20% to account for revenue losses not included in the analysis. Thus the FAA estimates losses of \$1.63 million for the time examined by this analysis.

The annual airspace restriction cost to the pilots using the Potomac Airfield Airport sum to \$368,500 and are based on the ground and in-flight delays as well as the time to file flight plans. Complying with the aforementioned airspace and communications requirements would cost the Potomac Airfield Airport an estimated \$2.00 million annually.

Washington Executive/Hyde Field Airport - Washington Executive/Hyde Field Airport is a small privately owned airport located in Clinton, Maryland. The airport largely serves the needs of private pilots who occasionally fly for business reasons. This airport was closed longer than the other two; operations resumed at Hyde Field on March 2, 2002. However, on May 17, 2002, the airport was closed again because of a security violation. The airport reopened on September 28, 2002. This resulted in the estimate of losses associated with complying with the operational restrictions from the former SFAR 94 for this airport to be \$1.60 million.

The annual airspace restriction cost to the pilots using the Washington Executive Airport/Hyde Field sum to \$596,500 and are based on the ground and in-flight delays as well as the time to file flight plans. Complying with the aforementioned airspace and communications requirements would cost the Washington Executive Airport/Hyde Field an estimated \$2.19 million annually.

Other Costs - Flight service station specialists would need to process the flight plans; annual costs sum to approximately \$70,800.

Annual costs for the ten-year extension of the provisions of the former SFAR 94 sum to \$6.06 million. Over ten years, these costs sum to \$60.64 million (\$42.59, discounted).

Other DC SFRA/FRZ-related costs

There are approximately 150 airports within the DC SFRA/FRZ, and so there will be additional costs, both for pilots flying within the DC SFRA/FRZ and for the other airports within the zone. However, three airports (College Park, Potomac, and Washington Executive/Hyde) have already been discussed above, so they will not be included in this discussion.

Costs for pilots – All operations, whether VFR or IFR, would now have to file plans. In addition, all operations, not just aircraft operating under IFR, would have to be transponder equipped when entering the DC SFRA/FRZ and maintain two-way communications while flying in the DC SFRA/FRZ.

Pilots flying VFR now have to file flight plans to fly within the DC SFRA/FRZ, while they didn't have to before; these are new costs. The FAA estimates an additional 123,800 flight plans would need to be filed annually in 2004, growing to 135,000 in 2013. Ten year costs due to flight delays as well as the time needed to file flight plans sum to \$48.63 million. In addition, flight service station specialists would need to process the flight plans; ten-year costs sum to approximately \$3.06 million. Total costs for these additional flight plans sum to \$51.70 million (\$36.12 million, discounted) over ten years.

Costs for small airports – As mentioned above, there are approximately 150 airports in the DC SFRA, most of which do not keep operations records. Given the additional requirements that GA pilots face, the FAA is concerned that many of these airports would have fewer operations, resulting in a loss of revenue. In some cases, some of these pilots would fly to alternative, near-by airports just outside of the DC SFRA in place of those just inside the DC SFRA, resulting in an increase in operations and revenue for these alternative airports. The FAA does not have data as to the change in operations and revenue in the airports both within and just outside the DC SFRA/FRZ.

TOTAL COSTS

Total quantifiable costs sum to \$296.60 million (\$207.41 million, discounted) over ten years.

The FAA does not have the data to determine whether the rule would impose a significant economic impact on a substantial number of small entities (small airports), but has prepared a regulatory flexibility analysis anyway. The FAA believes it is important to show the potential impact on these entities for the sake of completeness and to engender comments. The rule is not expected to adversely

affect international trade or impose unfunded mandates costing more than \$120.7 million in a year on state, local, or tribal governments or on the private sector.

I. Introduction and Background

The September 11, 2001 terrorist attacks using four U.S. commercial aircraft resulted in an unprecedented loss of life and property at the World Trade Center and the Pentagon. In response, the Federal Aviation Administration (FAA) immediately placed flight restrictions on all aircraft operations within the territorial airspace of the United States. During this period of national emergency, only certain military, emergency, and law enforcement aircraft operations were allowed to operate. This prohibition was partially lifted on September 13, 2001.

The possibility of another such terrorist attack resulted in the placement of numerous flight restrictions, especially in large metropolitan areas throughout the United States. Following the September 11th attacks, the Washington, D.C. area was placed under the most stringent security regulations. Despite the September 13th lifting of flight restrictions, non-commercial aircraft operations in the Washington, D.C. Metropolitan area remained prohibited at all civil airports within a 25-nautical mile radius of the Washington (DCA) VHF omnidirectional range (VOR)/distance measuring equipment (DME).

On October 5, 2001, the FAA issued Notice to Airmen (NOTAM) 1/0989, which authorized instrument flight rules (IFR) operations and limited visual flight rules (VFR) operations within an 18 to 25 nautical mile radius from the DCA VOR/DME in accordance with emergency air traffic rules issued under 14 CFR 91.139. Exceptions to the restrictions affecting part 91 operations in the Washington, DC area were made to permit the repositioning of aircraft from specific airports and to permit certain operations conducted under waivers issued by the FAA.

On December 19, 2001, the FAA canceled NOTAM 1/0989 and issued NOTAM 1/3354 that, in part, set forth special security instructions under 14 CFR 99.7 and created a new TFR for the Washington, DC area.¹ That action significantly decreased the size of the area subject to the earlier prohibitions on part 91 operations in the Washington, DC area. As security concerns were resolved, most general aviation operations resumed with varying degrees of restriction. However, three airports, College Park Airport (CGS), Potomac Airfield (VKX) and Washington Hyde Field (W32), remained closed (due to their proximity to important national Capitol area assets) for a sustained period following the September 11 attacks. The fundamental reasons for maintaining these restrictions were the continuing threat from potential terrorist attacks and the vulnerability posed by the proximity of these airports to many government assets and facilities in the U.S. Capital.

¹ The NOTAM also created TFR's in the Boston and New York City areas.

On February 19, 2002, the FAA cancelled NOTAM 1/3354 and issued NOTAM 2/1369. NOTAM 2/1369 (updated and reissued as 2/2263, November 27, 2002) contained the description of the Washington Metropolitan Area Special Flight Rules Area, as published in SFAR 94, and prohibited flight by part 91 and certain other aircraft within the Special Flight Rules Area. On February 14, 2002, the FAA issued NOTAM 2/1257, which provided flight plan filing procedures and air traffic control arrival and departure procedures for pilots operating from the above three Maryland airports in accordance with SFAR 94. The FAA updated and reissued NOTAM 2/1257 as NOTAM 2/2720 on December 10, 2002. NOTAM 2/2720 permits pilots vetted at any one of the three Maryland airports to fly into either of the other two airports. On February 14, 2003, the expiration date of SFAR 94 was amended for an additional two years to February 14, 2005.

On February 1, 2003, NOTAM 2/2720 was replaced by NOTAM 3/0853. Through NOTAM 3/0853, the FAA, in consultation with the Transportation Security Administration (TSA) and other Federal agencies, implemented a system of concentric airspace rings and complementary airspace control measures to protect against a potential threat to the Washington, DC Metropolitan Area. The dimensions of this protected airspace were determined after considering such factors as the average speed of likely suspect aircraft and minimum launch time and speed of intercept aircraft.

On February 10, 2003, the Washington, DC Metropolitan Area Air Defense Identification Zone (DC ADIZ) was established via NOTAM Number 3/1106. The operating requirements within the DC SFRA (Special Flight Rules Area) are specific to the DC Metropolitan area. Operating restrictions have included communication and flight plans requirements as well as obtaining a discrete transponder code.

In February 2005, TSA published an Interim Final Rule (IFR) that codified the provisions of the former SFAR 94 under 49 CFR Part 1562. SFAR 94 was initially promulgated on February 19, 2002 and required each person operating an aircraft to or from College Park Airport, Potomac Airfield, and Washington Executive/Hyde Field to comply with specified air traffic procedures and security procedures approved by the Administrator. SFAR 94, when initially promulgated, required specific security-related procedures by each of these airports and by the pilots who wanted to fly into or out of these airports. The FAA and TSA assumed that all covered pilots were briefed during the first year of this SFAR. The TSA IFR does allow new pilots into each of these airports by allowing transient operations; the new pilots would have to satisfy these same specific security-related procedures. The airspace restrictions in NOTAM 3/0853 remain under FAA authority.

II. DISCUSSION OF THE PROPOSED RULE

The Administrator has broad authority to regulate the safe and efficient use of the navigable airspace (49 U.S.C. 40103(a)). The Administrator is also authorized to issue air traffic rules and regulations to govern the flight of aircraft, the navigation, protection, and identification of aircraft for the protection of persons and property on the ground, and for the efficient use of the navigable airspace. As a result, several different airspace restrictions and prohibitions have been established for security-related purposes and they will be discussed below.

The level of controlled air traffic has increased since September 11, 2001, due to additional communications requirements on all aircraft operators in the Washington, DC Metropolitan area, implemented for security reasons. Initial restrictions encompassed a 25 nautical mile radius (NMR) centered on the Washington Monument. On December 19, 2001 a Temporary Flight Restriction (TFR) was implemented around the Washington (DCA) VOR/DME. This area was identified as the Washington, D.C. Metropolitan Special Flight Rules Area. All CFR Chapter 14, Parts 91, 103, 105, 125, 133, 135, and 137 operators were prohibited within this area unless a waiver was issued by the Transportation Security Administration (TSA). These restrictions did not apply to Department of Defense (DOD), Law Enforcement and aeromedical flight operations that were in contact with air traffic control and displaying a separate and distinct transponder code. The FAA also issued Special Federal Air Regulation 94 (SFAR 94); SFAR 94, published February 13, 2002, authorized general aviation operations at College Park Airport, Potomac Airfield, and Washington Hyde Field providing stringent requirements were met.

This rulemaking action proposes to codify current flight restrictions and NOTAM's for aircraft operating in the vicinity of the Washington, DC Metropolitan Area and places all airspace restrictions within the Washington, DC Metropolitan Area in one regulation. Specifically, this action proposes to codify that specific airspace known as the Washington, DC Metropolitan Area Air Defense Identification Zone (DC ADIZ), and rename it as the Washington, DC Metropolitan Special Flight Rules Area (SFRA). Special security procedures would apply within the SFRA. This action also proposes to codify the current Washington, DC Metropolitan Area Flight Restricted Zone (FRZ). In addition, this action proposes to incorporate the air traffic provisions of the former SFAR 94. Airport security sections of the former SFAR 94 have been transferred to and codified by the TSA as they are delegated the responsibility for airport security.

The Current Flight Restrictions/Prohibitions include:

1) Prohibited Area 56 (P-56) – Establishing airspace restrictions for security reasons in the Washington, DC area is not a new practice. In 1938, by Executive Order 7910, airspace was reserved and set apart for national defense, the public safety and other governmental purposes. Over the years, the size and dimensions of this area, known today as P-56 have changed in response to world events. No person may operate an aircraft within a prohibited area unless authorization has been granted by the using agency. This proposed action does not modify P-56. However, with the proposed SFRA the ability of law enforcement personnel to protect the President, Cabinet members, the Congress and other assets in the capital region would be enhanced and strengthened due to increased communication requirements and flight restrictions.

2) Washington, DC Metropolitan Area Special Flight Rules Area (Washington, DC SFRA) – On February 10, 2003, the Washington, DC Metropolitan Air Defense Identification Zone was established via the United States NOTAM system. NOTAM #3/2126 contains flight restrictions and procedures for aircraft operations within the Washington metropolitan area, including equipment, communication and flight plan filing. In this action we are proposing to establish an area (Washington, DC SFRA) with specific procedures and pilot and equipment requirements in order to operate in the area.

3) Washington, DC Metropolitan Area Flight Restricted Zone (DC FRZ) – This action also proposes to codify an airspace area that is currently established via NOTAM 3/1106 and known as the Washington, DC Metropolitan Area Flight Restricted Zone (FRZ). The FRZ prohibits aircraft operations within approximately a 15 nautical mile radius of the Washington, DC DCA VOR/DME, unless authorized by the FAA, in consultation with the USSS or the TSA.

4) 49 CFR Part 1562/ NOTAM 3/0853 (formerly SFAR 94) – SFAR 94 was initially promulgated on February 19, 2002, and amended on February 14, 2003, for the purpose of extending the expiration date for two additional years. The rule requires each person operating an aircraft to or from College Park Airport, Potomac Airfield, and Washington Executive/Hyde Field to comply with specified air traffic procedures and security procedures approved by the Administrator. (In this document, these airports are also referred to as the Maryland-3). These provisions apply to any person operating an aircraft to and or from these airports. It affects all aircraft operations at these airports. In February 2005, TSA extended the security aspects of these procedures under 49 CFR Part 1562; the airspace restrictions in NOTAM 3/0853 remain under FAA authority.

SFAR 94, when initially promulgated, required specific security-related procedures by each of these airports and by the pilots who wanted to fly into or out of these airports. The FAA and TSA assumed that all covered pilots were briefed

during the first year of this SFAR, and costed the provisions accordingly. In February 2005, TSA published an Interim Final Rule that allowed new pilots into each of these airports by allowing transient operations. However, TSA believes that given the security restrictions and three years experience with local based operations, transient operations at these airports is likely to be limited.

III. COST OF COMPLIANCE

In this analysis, the FAA estimated future costs for a 10-year period, from 2004 through 2013. As required by the Office of Management and Budget, the present value of this stream of costs was calculated using a discount factor of 7 percent. All costs in this analysis are in 2002 dollars.

There are three cost-related areas – the impact to air traffic, those airports impacted by the former SFAR 94, and other DC SFRA/FRZ-related costs.

A. The impact to air traffic

The Eastern Region Air Traffic Division (AEA) has had to assume additional duties because of the communications requirements implemented by NOTAM within the FRZ and the DC SFRA. In addressing the costs associated with the DC SFRA/FRZ, the FAA made a comparison using the baseline month of July 2001 to July 2002 and July 2003. The DC SFRA/FRZ includes approximately 150 airports and heliports, which are serviced primarily by the Potomac Consolidated Terminal Radar Approach Control (TRACON) (PCT), and the Leesburg Automated Flight Service Station (DCA AFSS).

Additional communications requirements for aircraft within the DC SFRA, have increased the number of aircraft verified by the air traffic control facilities of Potomac TRACON, Leesburg AFSS as well as adjacent approach controls, Air Route Traffic Control Centers (ARTCC), and AFSS's. In addition, new airspace restrictions have also increased the workload and complexity at these facilities.

The traffic count and workload for July 2001 was used as the baseline month to compare with the post-September 11, 2001 activity in the Washington Area. The activities in the months of July 2002 and July 2003 will be compared to July 2001.

Additionally, the TRACON function was separated and relocated from the air traffic control towers (ATCT) of Andrews (ADW), Baltimore (BWI), Washington National (DCA), Dulles (IAD), and Richmond (RIC) and consolidated into the Potomac Consolidated TRACON (PCT).

The security identification requirements for the DC SFRA in February 2003, and the TFR/FRZ in 2002 increased traffic and workload for the Potomac TRACON, as measured in total operations, as shown in Table 1.

Table 1 – Workload Increase in Potomac TRACON				
	July 2001	July 2002	July 2003	Increase since 2001 (%)
	Class B/C - ADW, BWI, DCA, IAD, RIC	Class B/C & FRZ - ADW, BWI, DCA, IAD, RIC	Class B/C & FRZ & DC ADIZ - PCT TRACON	
Total Operations	17,067	20,469	34,841	17,774 (104)

The number of operations handled by Manassas (HEF) ATCT increased due to the fact that it was the only airport that was within the DC SFRA that could handle the business and general aviation community. HEF ATCT operations increased as follows, as shown in Table 2:

Table 2 – Increased Workload at Manassas ATCT				
Operations	July 2001	July 2002	July 2003	Increase since 2001 (%)
Total	12,264	13,199	15,181	2,917 (23.8)
IFR	1,171	1,591	1,939	768 (65.6)

All Eastern Region AFSS's routinely brief users to, from, through, and around the DC SFRA/FRZ. DCA AFSS experience the most significant DC SFRA/FRZ impact as the airspace falls within their geographical flight plan area. Impacts to DCA AFSS cascades to other stations via the Eastern Region AFSS Traffic Management Program. Under this program, a station unable to meet heavy traffic demand may offload a portion of their traffic to a station(s) with more capacity.

The DCA AFSS is solely responsible for accepting flight plans for general aviation operations within the FRZ. Due to Flight Data Center (FDC) NOTAM 3/0853, the DCA AFSS currently processes flight plans for all operations to/from the three airports that operated under the former SFAR 94 as well as security flight planning for other aircraft authorized to operate within the FRZ.

Operational increases associated with DC SFRA/FRZ flight plans and calls to briefers shows an increase, as shown in Table 3:

	July 2001	July 2002	July 2003	Increase since 2001 (%)
Flight Plans	8,767	9,865	21,195	12,428 (141.8)
Calls to Briefer	18,116	19,183	24,165	6,049 (33.4)

Altoona (AOO), Elkins (EKN), and Williamsport (IPT) AFSS's are in geographical proximity to the DC SFRA/FRZ. DCA AFSS has offloaded traffic from Maryland to AOO, EKN, and IPT. Buffalo (BUF), Islip (ISP) and Millville (MIV) AFSS's also routinely brief users to, from, through, and around the DC SFRA/FRZ. The flight plans and calls to briefers to these six AFSS's are as follows, as shown in Table 4:

	July 2001	July 2002	July 2003	Increase since 2001 (%)
Flight Plans	33,333	34,475	43,282	9,949 (29.9)
Calls to Briefer	79,767	82,385	91,553	11,786 (14.8)

In sum, the workload has increased both throughout the entire DC SFRA/FRZ and in nearby AFSS's, resulting in the need for additional staff to handle both the existing workload as well as additional responsibilities.

A.1. Staffing Estimates

The FAA estimates the additional staff, resulting from the additional workload described above, by taking into account two factors distinct to controllers. They include:

- a) Projected staffing needs to be adjusted to provide for seven-day coverage and controller availability. The average employee works 5 days a week, however, these centers need to be staffed 7 days a week. Thus, the ratio of the number of days to be covered to the number of days that can be scheduled for a standard controller workweek is 7/5, or 1.4.
- b) In these 5 days per workweek, the average controller works a 40-hour week, resulting in being paid for 2,080 hours (52 weeks times 40 hours per week). The 1991 FAA Staffing Standard defines 429.4 as the number of hours a typical controller is not available to work on position for other than breaks and meals. Therefore, a controller is available to work 1657.6 hours out of these 2,080 annual working hours. The ratio of the total hours per year to the available hours per year for a controller is 2,080.0 divided by 1,657.6, or 1.255. To give an example, if a specific center needs 4 more controllers over the

course of a year, they would need to hire approximately 5 more controllers to provide coverage.²

These two factors need to be calculated together to get the total adjustment factor to determine additional staffing. Multiplying these two factors equals 1.76 (calculation: 1.4 x 1.255); therefore, the FAA would multiply the number of additional staffing positions required by 1.76. In other words, if a specific center needs 4 more controllers over the course of a year, they would need to hire approximately 7 more controllers to provide coverage.³

The FAA makes the following additional assumptions for costing out additional staffing needs:

- Staffing demands in the future are calculated by using annual growth rates of 1.2% for the TRACON's and 0.5% for the AFSS's;⁴
- Personnel, compensation, and benefits (PCB) for a PCT Certified Professional Controller (CPC) is estimated at \$140,000; and
- PCB for an Automated Flight Service Station Specialist is estimated at \$90,000.

A.1.a. Potomac TRACON – In order to handle the additional workload for 2003, controller staffing has been increased as follows:

- Shenandoah (SHD) Area: This radar function was previously located at Dulles ATCT. Two positions have been added to the SHD area. These positions require four additional CPC's, two for the day and two for the evening. To staff four controller positions, seven controllers are required.⁵ Additional costs sum to \$980,000.⁶
- Chesapeake (CHP) Area: This radar function was previously located at Baltimore ATCT. One position, for SFRA monitoring, has been added. This area has been impacted the most, and this position requires six additional CPC's, three for the day and three for the evening. To staff six controller

² 5 more controllers divided by 4 more controllers equaling 1.25; the actual factor is 1.255, hence, the use of the word approximately.

³ 7 more controllers divided by 4 more controllers equaling 1.75; the actual factor is 1.76, hence, the use of the word approximately.

⁴ The source for the TRACON growth rate is the Office of Aviation Policy and Plans, APO-110, August 2003. The FAA was unable to estimate growth rates for individual AFSS's, and so used the growth rate for all AFSS's, as found in FAA Aerospace Forecasts (Fiscal Years 2004 - 2013), Table 48, U.S. DOT, FAA, March 2003, Report No. FAA APO-03-1.

⁵ This is calculated by multiplying 4 times the adjustment factor of 1.76, and then rounding up.

⁶ This is calculated by multiplying 7 positions times \$140,000.

positions, eleven controllers are required.⁷ Additional costs sum to \$1,540,000.⁸

- Mount Vernon (MTV) Area: This radar function was previously located at Washington National ATCT. Two positions have been added, for the FRZ and SFRA below radar coverage. These positions require two additional CPC's, one for the day and one for the evening. To staff two controller positions, four controllers are required.⁹ Additional costs sum to \$560,000.¹⁰
- James River (JRV) Area: This radar function was previously located at Richmond ATCT. One position is staffed for overflow. This position requires two additional CPC's, one for the day and one for the evening. To staff two controller positions, four controllers are required. Additional costs sum to \$560,000.

The total additional staffing for the PCT TRACON in 2003 is 26 CPC's at a cost of \$3,640,000. To calculate future demand, the FAA grew the additional number of CPC's at 1.2%¹¹. The additional number of CPC's and their cost, which sums to \$37.52 million over 10 years, can be seen in Table 5.

Year	Shenandoah (SHD) Area	Chesapeake (CHP) Area	Mount Vernon (MTV) Area	James River (JRV) Area	New CPC's	Cost
2004	7	11	4	4	26	\$3,640,000
2005	7	11	4	4	26	\$3,640,000
2006	7	11	4	4	26	\$3,640,000
2007	7	11	4	4	26	\$3,640,000
2008	7	11	4	4	26	\$3,640,000
2009	8	11	4	4	27	\$3,780,000
2010	8	11	4	4	27	\$3,780,000
2011	8	12	4	4	28	\$3,920,000
2012	8	12	4	4	28	\$3,920,000
2013	8	12	4	4	28	\$3,920,000
Total						\$37,520,000

A.1.b. Manassas ATCT - In order to handle the additional workload based on the airspace requirements that resulted in more controlled airspace, the FAA

⁷ This is calculated by multiplying 6 times the adjustment factor of 1.76, and then rounding up.

⁸ This is calculated by multiplying 11 positions times \$140,000.

⁹ This is calculated by multiplying 2 times the adjustment factor of 1.76, and then rounding up.

¹⁰ This is calculated by multiplying 4 positions times \$140,000.

¹¹ The FAA is using 1.2% as the growth rate in general aviation operations in its latest forecast of general aviation activity.

has detailed an Operational Supervisor to the facility at an additional cost of \$120,000. The FAA assumes that they would only need one additional supervisor over the ten-year period covered by the analysis, so that ten-year costs sum to \$1.2 million.

A.1.c. Automated Flight Service Station (AFSS)

- Leesburg AFSS: In July 2003 this facility had an increase in workload related to the flight plan and briefing requirements in the DC SFRA. These requirements resulted in 18,457 operations over the July 2001 base year. Each of these operations took an average of three minutes each, so this number of additional operations took 55,371 minutes (calculation: 18,457 x 3 minutes), or 922.85 hours per month. Given that a controller is available for work on a yearly basis for 1657.6 hours, or 138.1 hours per month, this additional workload equals 6.67 controller positions per month (calculation: 922.85 hours divided by 138.1 hours), implying that this AFSS requires 12 additional controllers¹² in 2003 for a total additional cost is \$1,080,000.¹³
- Altoona, Buffalo, Elkins, Islip, Millville, and Williamsport AFSS: In July 2003, these six facilities had an increase in workload related to the DC SFRA of 21,735 operations over the July 2001 base year, dealing with flight plans and calls to briefers. At an average of three minutes each, these additional operations require 62,205 minutes or 1086.75 hours per month. Given a controller's availability, this additional burden equals to 7.86 controller positions per month, meaning that this AFSS requires 14 additional controllers in 2003¹⁴ for a total additional cost is \$1,260,000.¹⁵

The total additional staffing for the AFSS's in 2003 is 26 CPC's at a cost of \$2,340,000. To calculate future demand, the FAA grew the additional number of CPC's at 0.5% and applied the adjustment factor. The number of additional required CPC's did not change, remaining at 26 over the ten-year period, so the total costs sum to \$23.4 million.

¹² This is calculated by multiplying 6.67 times the adjustment factor of 1.76, and then rounding up.

¹³ This is calculated by multiplying 12 positions times \$90,000.

¹⁴ This is calculated by multiplying 7.86 times the adjustment factor of 1.76, and then rounding up.

¹⁵ This is calculated by multiplying 14 positions times \$90,000.

Aggregate Costs

As shown in Table 6, total staffing costs, over ten years, sum to \$62.12 million (\$43.83 million, discounted).

Table 6 – Additional Staffing							
Year	Potomac TRACON	Manassas ATCT	AFSS's		Total Costs	Discount Rate	Discounted Costs
			Leesburg AFSS	Other AFSS's			
2004	\$3,640,000	\$120,000	\$1,080,000	\$1,260,000	\$6,100,000	0.9346	\$5,700,935
2005	\$3,640,000	\$120,000	\$1,080,000	\$1,260,000	\$6,100,000	0.8734	\$5,327,976
2006	\$3,640,000	\$120,000	\$1,080,000	\$1,260,000	\$6,100,000	0.8163	\$4,979,417
2007	\$3,640,000	\$120,000	\$1,080,000	\$1,260,000	\$6,100,000	0.7629	\$4,653,661
2008	\$3,640,000	\$120,000	\$1,080,000	\$1,260,000	\$6,100,000	0.7130	\$4,349,216
2009	\$3,780,000	\$120,000	\$1,080,000	\$1,260,000	\$6,240,000	0.6663	\$4,157,975
2010	\$3,780,000	\$120,000	\$1,080,000	\$1,260,000	\$6,240,000	0.6227	\$3,885,958
2011	\$3,920,000	\$120,000	\$1,080,000	\$1,260,000	\$6,380,000	0.5820	\$3,713,218
2012	\$3,920,000	\$120,000	\$1,080,000	\$1,260,000	\$6,380,000	0.5439	\$3,470,297
2013	\$3,920,000	\$120,000	\$1,080,000	\$1,260,000	\$6,380,000	0.5083	\$3,243,268
Total	\$37,520,000	\$1,200,000	\$10,800,000	\$12,600,000	\$62,120,000		\$43,481,922

A.2. Other Costs – All these activities are centered at the Potomac TRACON.

A.2.a. Pilot Deviations

The Potomac TRACON has filed 403 Pilot Deviations for the DC SFRA from February 11, 2003 to August 5, 2003, or approximately 2.4 deviations per day. Based on this level of deviations, the FAA would expect 876 over the course of the first twelve months of the SFRA.¹⁶ These deviations did not exist prior to the establishment of the DC SFRA, so these 2.4 deviations per day are additional deviations and are a result of this rule. Violations can occur for a number of reasons, including:

- Unfamiliarity with the airspace and the air traffic control procedures;
- Failure to check for NOTAM's;
- Complexity of the airspace;
- Overlying Class B airspace;
- Over reliance on technology, such as Global Positioning Satellites (GPS);
- Confusion over landmarks;
- Delay in getting air traffic control clearance; and
- Inadvertent pilot error.

¹⁶ There are 152 days between February 11 and August 5. Dividing 403 by 152 equals 2.4. Multiplying 2.4 times 365 days equals 876.

The costs associated with the pilot deviations are as follows:¹⁷

- Initial Investigation: Three hours are needed when it is first reported, for a cost of \$253.¹⁸
- Package Preparation: Approximately four hours of staff work is needed for each package, for a cost of \$338.¹⁹

The total cost for one pilot deviation is \$591. For the 876 projected deviations in the first 12 months for PCT, the cost would be \$517,800 (calculation: \$591 times 876). To calculate future cost, the FAA grew the number of deviations at 1.2%. The additional number of deviations and their cost, which sums to \$5.53 million over ten years (\$3.86 million, discounted), can be seen in Table 7.

Year	Post-SFRA	Cost	Discount Rate	Discounted Cost
2004	887	\$524,217	0.9346	\$489,922
2005	897	\$530,127	0.8734	\$463,033
2006	908	\$536,628	0.8163	\$438,048
2007	919	\$543,129	0.7629	\$414,351
2008	930	\$549,630	0.7130	\$391,879
2009	941	\$556,131	0.6663	\$370,574
2010	952	\$562,632	0.6227	\$350,379
2011	964	\$569,724	0.5820	\$331,585
2012	975	\$576,225	0.5439	\$313,428
2013	987	\$583,317	0.5083	\$296,529
Total	9,360	\$5,531,760		\$3,859,727

As familiarity with the DC SFRA grows, the number of deviations may diminish in future years. Government officials believe that the number of deviations may not grow at 1.2% over the next 10 years or may even decline.²⁰ Either a slower rate of growth or a decline could be due to:

- these rules being in the Code of Federal Regulations (CFR), readily available to all pilots;
- explicitly classifying this airspace as "national defense airspace"; and/or

¹⁷ Backlog Package Preparation: PCT has a one time cost needed to process 238 pilot deviation packages; they do not have the resources, so two supervisors have been detailed to handle the backlog. The FAA estimates it will take approximately 60 days and cost approximately \$10,200. This cost will occur in 2003 and is not being included in the 10-year cost projections.

¹⁸ This is calculated by dividing 3 hours by 1,657.6 hours and multiplying by their salary of \$140,000.

¹⁹ This is calculated by dividing 4 hours by 1,657.6 hours and multiplying by their salary of \$140,000.

²⁰ The number of deviations in the DC ADIZ did decline by about 60% from 509 in the first 5 months of 2003 to 197 through May 17, 2004. Source: FAA Air Traffic Pilot Deviation Reports.

- violations of the rules that could result in the use of lethal force, FAA enforcement action, or criminal prosecution.

In other words, a heightened awareness in the pilot community about these rules and the potential serious consequences that could result if a pilot violates the rules may result in a lower number of violations than those projected in Table 7.

For purposes of the Regulatory Evaluation, the FAA will be conservative so as not to underestimate costs and will not assume that the rate of growth of deviations will diminish. The FAA calls for comments on how many pilot deviations would occur after the SFRA is codified and requests that all comments be accompanied by full documentation.

A.2.b. Track of Interest

The Potomac TRACON has filed 443 Tracks of Interest (TOI)²¹ inquiries from Law Enforcement, and the Department of Defense for the DC SFRA between February 11, 2003 and July 13, 2003, or about 2.9 TOI's per day. Based on this level of TOI's, the FAA would expect 1,062 over the course of the first 12 months.²² These TOI's did not exist prior to the establishment of the DC SFRA, and so is a cost of this rule. As familiarity with the DC SFRA grows, the number of TOI's may diminish in future years, but the FAA will be conservative so as not to underestimate costs and will not assume that the TOI's diminish.

The costs associated with the pilot deviations are as follows:

- Initial Investigation: Approximately 1.5 hours are needed when it is first reported, at a cost of \$127.²³
- Package Preparation: No packages are required

The total cost for one TOI is \$127. For the 1,062 projected deviations in the first 12 months for PCT, the cost would be \$134,900 (calculation: \$127 times 1,062). To calculate future cost, the FAA grew the number of TOI's at 1.2%. The additional number of TOI's and their cost, which sums to \$1.44 million over ten years (\$1.01 million, discounted), can be seen in Table 8.

²¹ A track of interest is where a center has to track an aircraft that it has no record or other information assigned to it on the controller's radar screen.

²² There are 152 days between February 11 and August 5. Dividing 443 by 152 equals 2.9. Multiplying 2.4 times 365 days equals 1,062.

²³ This is calculated by dividing 1.5 hours by 1,657.6 hours and multiplying by their salary of \$140,000.

Table 8 – TOI's				
Year	Post-SFRA	Cost	Discount Rate	Discounted Cost
2004	1,075	\$136,525	0.9346	\$127,593
2005	1,088	\$138,176	0.8734	\$120,688
2006	1,101	\$139,827	0.8163	\$114,140
2007	1,114	\$141,478	0.7629	\$107,933
2008	1,127	\$143,129	0.7130	\$102,049
2009	1,141	\$144,907	0.6663	\$96,558
2010	1,154	\$146,558	0.6227	\$91,269
2011	1,168	\$148,336	0.5820	\$86,333
2012	1,182	\$150,114	0.5439	\$81,652
2013	1,197	\$152,019	0.5083	\$77,279
Total	11,347	\$1,441,069		\$1,005,494

A.2.c. Enforcement

After the packages for the pilot deviations are processed and forwarded to the Flight Standards Division for investigation, five individuals²⁴ would be needed to be available for FAA lawyers for approximately two days. The FAA estimates that three of the five individuals would require backfill overtime on the control room floor; each would need to put in an additional 48 hours, which is costed, at time and a half, as 72 hours.

For the five individuals to be available for one case, 80 hours, costing \$6,758,²⁵ is required for each enforcement case under the existing rules in the NOTAM, and 72 hours, costing \$6,082 for the overtime.²⁶ The total cost for each litigation, based on each pilot deviation, is \$12,840 (calculation: \$6,758 plus \$6,082).

The FAA believes that, with the codification of this proposed rule, these costs would be reduced because the relative complexity of existing enforcement cases would be greatly simplified and current enforcement costs would decrease.

Presently, many pilots who are charged with violating the DC ADIZ airspace rules claim that they didn't know about the restrictions published in the existing NOTAM because FAA briefers failed to accurately or fully read the NOTAM to them. As a result, part of the present cost to the Government in taking

²⁴ The five individuals required are based on an actual DC ADIZ violation, and includes the controller who worked the aircraft, the staff specialist who prepared the radar plot and the incident form, the on duty supervisor, and the AFSS specialist who provided the briefing.

²⁵ This is calculated by dividing 80 hours by 1,657.6 hours and multiplying by their salary of \$140,000.

²⁶ This is calculated by dividing 72 hours by 1,657.6 hours and multiplying by their salary of \$140,000.

enforcement action is the time it takes the FAA investigators and FAA attorney to gather evidence that the FAA briefer did give the pilot the correct NOTAM-related information.²⁷ The FAA estimates that at least 15% of the total FAA enforcement costs per case are related to dealing with such defenses. If this proposed rule is eventually adopted, those enforcement costs will no longer exist because pilots would be required to be knowledgeable about the rules. Accordingly, the FAA will reduce the cost of \$12,840 by 15% to \$10,914.

For the 876 projected deviations in the first 12 months for PCT in 2003, as discussed above in A.2.b., the cost would be \$9.56 million (\$10,914 times 876). To calculate future cost, the FAA grew the number of deviations at 1.2%; hence, the number of deviations in the following year, 2004, would grow to 887 (calculation: 876 times 1.012). The additional number of litigations and their cost, which sums to \$102.16 million over ten years (\$71.28 million, discounted), can be seen in Table 9.

Table 9 – Additional Litigation				
Year	Post-SFRA	Cost	Discount Rate	Discounted Cost
2004	887	\$9,680,718	0.9346	\$9,047,400
2005	897	\$9,789,858	0.8734	\$8,550,841
2006	908	\$9,909,912	0.8163	\$8,089,440
2007	919	\$10,029,966	0.7629	\$7,651,813
2008	930	\$10,150,020	0.7130	\$7,236,824
2009	941	\$10,270,074	0.6663	\$6,843,384
2010	952	\$10,390,128	0.6227	\$6,470,450
2011	964	\$10,521,096	0.5820	\$6,123,374
2012	975	\$10,641,150	0.5439	\$5,788,081
2013	987	\$10,772,118	0.5083	\$5,475,999
Total	9,360	\$102,155,040		\$71,277,605

As discussed above, as familiarity with the DC SFRA grows, the number of deviations may diminish in future years, leading to a reduced number of enforcement cases.²⁸ However, the FAA is being conservative so as not to

²⁷ Not only are there costs associated with gathering that evidence, but there are also costs associated with pre-hearing motions in which a pilot might try to have the charges dismissed because they claim that the FAA briefer failed to give a full and appropriate briefing about relevant NOTAM's. Some of the costs (e.g., evidence gathering) are routinely incurred in most enforcement cases concerning the DC ADIZ rules because pilots raise these defenses so frequently that the Government has to assume such defenses will be raised in most cases.

²⁸ The number of violations in the DC ADIZ/FRZ did decline from 998 for all of 2003 to 204 from January 1, 2004 through May 17, 2004. Source: FAA Enforcement Information System. However, the FAA does not believe that 5 months worth of data is sufficient to use for projection purposes.

underestimate costs and will use the number of enforcement cases shown in Table 9 for costing purposes. The FAA calls for comments on both the potential reduction in legal costs as the knowledge of the SFRA becomes better known as well as a reduction in the number of enforcement cases and requests that all comments be accompanied by full documentation.

A.2.d. National Security Special Operations Unit (NSSOU)

In order to address the issues at the Potomac TRACON regarding operational errors, pilot deviations, tracks of interest, litigation, and meetings between various security-related groups, a special unit within the Potomac TRACON as a function of the Eastern Region Operations Branch is being established. The unit will consist of one Manager, three Staff Specialists and five specialists to work on the control room floor monitoring and handling all issues related to the DC SFRA/FRZ. The staff specialist will deal with the DC SFRA/FRZ, interaction with various groups, and processing of deviations.

The total cost of these nine additional personnel is \$1.26 million.²⁹ To calculate future cost, the FAA grew the number of additional personnel at 1.2%. The cost for the additional personnel, which sums to \$13.02 million over ten years (\$9.08 million, discounted), can be seen in Table 10.

Year	Manager	Staff Specialist	Control Room Specialist	Total	Total Costs	Discount Rate	Discount Cost
2004	1	3	5	9	\$1,260,000	0.9346	\$1,177,570
2005	1	3	5	9	\$1,260,000	0.8734	\$1,100,533
2006	1	3	5	9	\$1,260,000	0.8163	\$1,028,535
2007	1	3	5	9	\$1,260,000	0.7629	\$961,248
2008	1	3	5	9	\$1,260,000	0.7130	\$898,363
2009	1	3	5	9	\$1,260,000	0.6663	\$839,591
2010	1	3	5	9	\$1,260,000	0.6227	\$784,665
2011	1	3	6	10	\$1,400,000	0.5820	\$814,813
2012	1	3	6	10	\$1,400,000	0.5439	\$761,507
2013	1	3	6	10	\$1,400,000	0.5083	\$711,689
Total					\$13,020,000		\$9,078,514

²⁹ This is calculated by multiplying 9 positions times \$140,000.

Aggregate Costs

As shown in Table 11, the sum of all other costs sum to \$122.15 million (\$71.28 million, discounted) over ten years.

Year	Pilot Deviations	Tracks of Interest	Enforcement	NSSOU Personnel	Total Costs	Discount Rate	Discount Costs
2004	\$524,217	\$136,525	\$9,680,718	\$1,260,000	\$11,601,460	0.9346	\$9,047,400
2005	\$530,127	\$138,176	\$9,789,858	\$1,260,000	\$11,718,161	0.8734	\$8,550,841
2006	\$536,628	\$139,827	\$9,909,912	\$1,260,000	\$11,846,367	0.8163	\$8,089,440
2007	\$543,129	\$141,478	\$10,029,966	\$1,260,000	\$11,974,573	0.7629	\$7,651,813
2008	\$549,630	\$143,129	\$10,150,020	\$1,260,000	\$12,102,779	0.7130	\$7,236,824
2009	\$556,131	\$144,907	\$10,270,074	\$1,260,000	\$12,231,112	0.6663	\$6,843,384
2010	\$562,632	\$146,558	\$10,390,128	\$1,260,000	\$12,359,318	0.6227	\$6,470,450
2011	\$569,724	\$148,336	\$10,521,096	\$1,400,000	\$12,639,156	0.5820	\$6,123,374
2012	\$576,225	\$150,114	\$10,641,150	\$1,400,000	\$12,767,489	0.5439	\$5,788,081
2013	\$583,317	\$152,019	\$10,772,118	\$1,400,000	\$12,907,454	0.5083	\$5,475,999
Total	\$5,531,760	\$1,441,069	\$102,155,040	\$13,020,000	\$122,147,869		\$71,277,605

Total Costs of Additional Air Traffic Burden

As can be seen in Table A-1 in the Appendix, total ten-year costs to handle the additional air traffic burden sum to \$184.27 million (\$128.70 million, discounted). The ten-year cost components are summarized in Table 12.

Table 12 – Additional Air Traffic Burden	
	Ten Year Totals
Staffing	
Potomac TRACON	\$37,520,000
Manassas ATCT	\$1,200,000
Automated Flight Service Stations	
Leesburg AFSS	\$10,800,000
Other AFSS's	\$12,600,000
TOTAL STAFFING	\$62,120,000
Potomac TRACON - Other costs	
Pilot Deviations	\$5,531,760
Tracks of Interest	\$1,441,069
Enforcement - overtime/staffing	\$102,155,040
NSSOU Personnel	\$13,020,000
TOTAL OTHER COSTS	\$122,147,869
TOTAL COST	\$184,267,869
Discounted Cost	\$128,703,262

B. Costs to the airports impacted by the former SFAR 94 – College Park, Potomac, and Washington Executive/Hyde

In February 2003, the FAA, in concert with TSA, extended the SFAR 94 for an additional two years. As mentioned above, in February 2005, TSA incorporated ground security aspects of these procedures under 49 CFR Part 1562; the airspace restrictions in NOTAM 3/0853 remain under FAA authority.

The analysis showed annual costs totaling \$6.38 million, the vast majority of these costs accruing to the airports. Two-year costs summed to \$12.76 million (\$11.44 million, discounted).³⁰

This analysis examines the operational costs to these three airports over the next 10 years; security requirement-related costs will be discussed in TSA's regulatory evaluation. The FAA was able to obtain limited historical financial and operational data for College Park and Potomac Field Airports and was also able to obtain this data for part of their first year under the SFAR. Additional data restrictions, however, limited the analysis of the rule's impact on the Washington Executive Airport/Hyde Field. This airport opened on March 2, 2002, and was subsequently closed again on May 17, 2002. Hyde Field reopened on September 28, 2002. The two closings restricted the data available from the airport. Thus, as will be seen below, FAA was required to make additional assumptions in doing

³⁰ This analysis was done in 2001 dollars; all cost items were adjusted using the GDP Deflator.

the analysis for this airport. To provide a basis for comparison, the operational and financial data provided by the three airports has been adjusted to reflect full years of operation.

This analysis examines the operational cost impacts on the three airports separately. This is based on a study by the Maryland Aviation Administration (MAA) and recent operational and financial information furnished by each airport.³¹

Factors and Assumptions

The FAA assumed the following factors in estimating the cost of the proposed rule:

- The cost of either a pilot's or an aircraft occupant's time is \$31.46 per hour.³²
- The per hour cost of operating a piston driven, four seat aircraft is \$64.75.³³
- The average load factor for a four seat aircraft is 43.7 percent or 1.75 occupants.³⁴
- An airport manager's hourly wage, based on each airport's actual cost and revenue flows, equals \$45 per hour at College Park, \$42 per hour at Potomac, and \$40 per hour at Washington Executive/Hyde.³⁵
- To account for financial losses not captured by the analysis, twenty percent of lost revenue is added to the estimated cost of operational restrictions for all three airports.³⁶
- To compensate for the lack of financial data for Washington Executive Airport/Hyde Field, the average estimated cost of certain operational restrictions for the two other airports is used to estimate the revenue losses.

³¹ In May of 2001, Martin Associates completed an economic impact study of all General Aviation airports in Maryland; this study was funded by the Maryland Aviation Administration (MAA). The study found that in calendar year 2000, College Park Airport, Potomac Airfield, and Washington Executive/Hyde Field had the following combined economic impact:

- There were 210 airport-dependent jobs in existence;
- Airport related jobs resulted in \$7.4 million in personal income;
- Local purchases made by the airports exceeded \$2.5 million; and
- Airport businesses paid \$1.8 million in taxes.

³² *Economic Values for Evaluation of FAA Investment and Regulatory Programs*, Report No. FAA-APO-98-8, June 1998 – Table 1-1.

³³ *Economic Values for Evaluation of FAA Investment and Regulatory Programs*, Report No. FAA-APO-98-8, Table 4-7.

³⁴ *Economic Values for Evaluation of FAA Investment and Regulatory Programs*, Report No. FAA-APO-98-8, Table 3-6.

³⁵ These differences were discerned during interviews at these three airports.

³⁶ This is strictly an assumption to account for the financial losses for which we had no data and could not account for. The true loss may be higher or lower than this assumption.

- The data for the days that each airport was open and operating in 2002 was annualized to help estimate total operations and revenues. This data summed to about 6 ½ months for the College Park and Potomac airports and 4 months for Washington Executive Airport/Hyde Field.
- Hourly costs to the Federal Government include airport inspector (FG-14, \$56.48) and flight service station specialist (\$47.37) and to the state government law enforcement agency employee (\$47.80).³⁷
- Revenue is used as the financial indicator of economic costs in lieu of unavailable data on lost profits.
- Local purchases include procurements made by the airport and its tenants and airport sales to tenants, visitors, and local organizations.

In addition, the FAA made the following assumptions concerning the number of operations and revenue at these three airports:

- The number of operations, which was annualized from 2002 data, would remain constant at all three airports for the ten years examined by this analysis. As noted above, the TSA has allowed transient operations into these airports. However, FAA does not know how many additional aircraft will fly into or out of these airports. Unless a pilot plans on using one of these airports on a regular basis, they probably would not want to go through the vetting process. Thus, the FAA believes that the number of additional new operations would be minimal and calls for comments on the number of new pilots and operations for these airports. The FAA requests that all comments be accompanied by full documentation.
- Given the additional security vetting required by TSA, the FAA believes that these pilots who fly into any of these 3 airports would do so only if they believe that it is to their advantage to do so. In other words, the FAA recognizes that that these pilots would enjoy an unquantifiable benefit.
- The FAA does not believe that the recent TSA rule would increase the total number of flights within the SFRA. So while the actual number of flights to the Maryland-3 and to the other airports within the SFRA may change, the total number of flights within the SFRA would not. While the costs estimated and projected for the Maryland-3 and the other airports may change, the total costs related to these operations within the SFRA (in-flight delays, on-the-ground delays, and flight plan processing) would not change.
- Annual revenue, which was also annualized from 2002 data, would remain constant at all three airports for the ten years examined by this analysis. The FAA recognizes that additional transient flights have the potential to boost revenue to each airport, but believes that any potential increase would be small. The Agency calls for comments on how much additional revenue these transient operations

³⁷ All hourly wage rates for government employees were increased by 32.45% to account for all fringe benefits. This fringe benefits factor was derived from Table 4-5, page 4-22, Economic Analysis of Investment and Regulatory Decision--A Guide, FAA-APO-98-4, January 1998.

would bring in. The FAA requests that all comments be accompanied by full documentation.

B.1. College Park Airport (CGS)

The College Park Airport was opened in 1909 and is the oldest continuously operating airport in the world. The historic airport, owned by the Maryland-National Capital Park and Planning Commission, is the site where the Wright Brothers trained U.S. military pilots in 1909. Despite its single runway and relatively small size, the airport has been the site of numerous businesses and a source of revenue for the local economy. The businesses at the airport provide a range of aviation services, which include passenger terminal and lounge facilities, fuel services, parking, pilot supplies, aircraft maintenance, avionics service, aircraft interior services, aircraft parts, aviation accessories, and flight instruction. Because of its readily accessible location and nearby accommodations, the airport has traditionally been the site of numerous aviation conventions. With the exception of about 100 annual air taxi operations, the College Park Airport serves a number of private pilots who use their aircraft for business purposes.

B.1.a. Cost of Operational Restrictions

In the year 2000, College Park Airport recorded 19,798 total operations. Of this total, 12,378 were local operations and 7,420 or approximately 37.5 percent were itinerant operations. Data furnished by the airport show that at the end of 2000, 69 aircraft were based at the airport. By September 11, 2001, the number of based aircraft had grown to 87 flown by 250 pilots. In contrast, only 22 aircraft and 50 pilots remained by February 19, 2002, the date that operations resumed. As of August 31, 2002, thirteen aircraft had returned raising the total to 35 airplanes based at the airport.

Table 13 shows aircraft operations data for the CGS airport for the base period of year 2000 and for the period that it has been open, February 19, 2002 to August 31, 2002; this latter data have been annualized. As noted in the assumptions section above, the FAA assumes that the number of operations annualized from 2002 data remains constant for the ten years examined by this analysis.

	Base Period Year 2000	(2/19/02- 8/31/02) Annualized	Operational Change	Percentage Change
Local GA	12,378	2,400	(9,978)	-80.6%
Transient GA	7,220	0	(7,220)	-100.0%
Military	100	50	(50)	-50.0%
Air Taxi	100	0	(100)	-100.0%
Total	19,798	2,450	(17,348)	-87.6%

The data maintained by the Maryland National Capital Park and Planning Commission and airport management revealed that by March 2002, total airport revenues had declined by 79 percent. The moratorium and operational restrictions have also adversely impacted the earnings of businesses dependent on airport traffic.

The cancellation of special events has also decreased airport revenues. Since 1973, the College Park Airport has held an annual air show. The show attracted 50,000 persons and provided \$60,000 yearly to the airport. Conventions, such as the annual assembly of Aircoupe and Luscombe owners, have also been discontinued. The revenues stemming from the conventions totaled \$20,000 in 2001. Since January 2002, the airport has lost \$12,500 in revenues from the closing of the gift shop, removal of vending machines, and the decline in the sale of navigation charts and pilot supplies.

Table 14 below compares gross revenues from February 19th to August 31st, 2001, with the latest available data listed for the same period in 2002. As of August 31st, this airport had been open 194 days of a possible 202 days since the rule began.³⁸ Thus, the FAA annualized the 2002 data by multiplying by 1.85,³⁹ and assumed that the revenues derived during the period examined in 2002 stays the same for the ten years examined by this analysis.

As shown in Table 14, the College Park Airport and the surrounding community have experienced approximately \$731,700 or an 81 percent decline in airport-related revenues. This annualized revenue loss was increased by a factor of 20

³⁸ There were no operations for the first six days of the rule, from February 13 to February 18, 2002.

³⁹ This was calculated by dividing 194 days into 359 days, taking into account that the airport was not open the first six days of the rule.

percent to account for revenues losses not included in the analysis.⁴⁰ Thus the estimate of losses to College Park Airport associated with complying with the operational restrictions is \$1.62 million per year;⁴¹ this table also shows this revenue data annualized. This revenue data is divided between airport revenues and other revenue. The FAA does not have historical data on revenue growth at this airport. Accordingly, as discussed above, the FAA assumes no annual change in revenue.

Table 14 – College Park Airport Revenue Data						
	Gross Revenues				Annualized Dollar Change	Percentage Change
	Base Period (2/19/01-8/31/01)	Base Period Annualized	Contrast Period (2/19/02-8/31/02)	Contrast Period Annualized		
Fuel Sales	\$59,700	\$110,400	\$21,100	\$39,000	(\$71,400)	-64.7%
Parking Fees	\$47,600	\$88,100	\$18,400	\$34,000	(\$54,100)	-61.4%
Transient Parking	\$3,900	\$7,200	\$0	\$0	(\$7,200)	-100.0%
Conventions/shows	\$80,000	\$148,000	\$0	\$0	(\$148,000)	-100.0%
Airport Total		\$353,700	\$39,500	\$73,000	(\$280,700)	
Avionics Services	\$11,000	\$20,400	\$0	\$0	(\$20,400)	-100.0%
Major Airframe	\$15,300	\$28,300	\$0	\$0	(\$28,300)	-100.0%
Major Power Plant	\$13,200	\$24,400	\$0	\$0	(\$24,400)	-100.0%
Local Purchases	\$660,000	\$1,221,000	\$132,000	\$244,200	(\$976,800)	-80.0%
Misc. Sales	\$12,500	\$23,100	\$0	\$0	(\$23,100)	-100.0%
Other Revenue Total		\$1,317,200	\$132,000	\$244,200	(\$1,073,000)	-81.5%
Total Annual Revenue	\$903,200	\$1,670,900	\$211,000	\$317,200	(\$1,353,700)	-81.0%
Plus 20 percent					(\$1,624,400)	

B.1.b. Cost of Airspace Restrictions

Pilots would need to file flight plans and would most likely experience delays prior to departure, each pilot files an IFR or VFR flight plan. This requirement is causing pilots to spend additional time on the ground and in the air. Before the SFAR 94 flight restrictions, 95 percent of pilots did not file flight plans, and those pilots who filed flight plans did so infrequently.

⁴⁰ Due to the lack of data, Table 14 does not include items such as the reduction in taxes paid by the airport and its tenants, the impact on employment, or an assessment of the reduction of personal income in the airport's community.

⁴¹ This was calculated by dividing 194 days into 359 days, taking into account that the airport was not open the first six days of the rule.

Pilots filing a flight plan must first call the Leesburg AFSS and subsequently contact Departure Control at Potomac TRACON (PCT) to receive a transponder code. After landing at another airport, prior to returning, these pilots are required to repeat the procedure above. Unfortunately, in both cases, while filing a flight plan, pilots experience both ground and in-flight delays. Factors contributing to ground delays include the time to complete the flight plan, radio frequency congestion from the AFSS and Departure Control, and delays in obtaining a transponder code. Information furnished by the airport reveals that pilots are routinely experiencing on average an additional hour of delay on the ground to comply with this requirement. Pilots returning to the airport are also experiencing flight delays. The airport's management estimates that 25 percent of flights are spending an additional 30 minutes in the air as a result of the operational restrictions. Factors contributing to flight delays include radio frequency congestion from the AFSS and unexpected frequency changes. These delays cause additional aircraft operating and passenger time costs.

The College Park Airport recorded an average of 200 monthly operations for the six-month span from February 19, 2002, to August 31, 2002. As noted above, the FAA assumes that the number of operations per month would remain constant, resulting in 2,400 annual operations.

Based on information from the Leesburg AFSS, the FAA assumes that it takes a total of 6 minutes for a pilot to file a flight plan and the flight service station specialists to process it.⁴² For computational purposes, the FAA will divide these 6 minutes in half – attributing half to the pilot and half to the flight service station specialist. The FAA notes that, in some circumstances, the time attributed to the

⁴² Leesburg AFSS maintains records of the maximum wait time for pilots every hour of the day. It is not unusual, during periods of especially heavy activity, to have wait times of 15 minutes. On May 28, 2004, the start of the Memorial Day weekend and the period when GA flying activity is at its peak, 40 pilots waited an average of 35 minutes to reach a briefer, yet for all pilots that day, the average wait time and the average length of the briefings was about 4 minutes. If the pilot also wanted a complete weather briefing or had additional needs, the briefing could take a longer.

The weather could be an important factor. Instrument flight rules (IFR) or marginal visual flight rules (VFR) conditions limit flying only to the most experienced pilots (e.g. IFR rated pilots). This significantly reduces the call volume. While briefings may be longer, there are fewer calls and faster service. The time of the day and week is also significant; Fridays, from 5:30 AM through 4:00 PM, and Saturdays are the busiest during the summer. At these times, the situation can be significantly exacerbated if the weather deteriorates swiftly, thunderstorms develop, or unexpected marginal VFR conditions intrude on an otherwise nice weather day, leading to a significantly increased call volume. In addition, call volume and wait times increase approaching the beginning of each hour, when updated weather is available.

Another factor with wait times deals with the familiarity and confidence level of the pilot with the current ADIZ and proposed SFRA procedures. Student pilots, or pilots unfamiliar with these procedures must be thoroughly briefed to ensure their safety.

pilot may not be an additional time burden as the pilot may be able to call in the information while already doing some other task. For example, if the pilot is a passenger in a car or other vehicle on the way to the airport, the pilot could contact the flight service station specialist via a cell phone. The value of a pilot's time is \$31.46 per hour. Given 2,400 flights per year, the annual flight plan filing cost is expected to be about \$3,800 (2,400 x \$31.46 per hour x 3 minutes/60 minutes/hour).

In addition, there will be additional costs for ground and in-flight delays; they will be analyzed separately:

- Ground Delays – The value of a passenger's time is \$31.46 per hour. The average load factor for a four seat aircraft is 43.7 percent or 1.75 occupants, so that the hourly value of passenger time per flight applied in this calculation is \$55.06 or $\$31.46 \times 1.75$. The average on the ground delay is 1 hour. Therefore, the cost of ground delays at College Park Airport is estimated to be approximately \$132,100 (2,400 operations x \$55.06 x 1 hour average delay per operation).

- In-Flight Delays – The hourly operating cost of a four seat, piston driven, single-engine general aviation aircraft is derived by adding the cost of fuel and oil consumption and the aircraft's variable maintenance cost. The cost of operating a four seat general aviation aircraft is \$64.75 per hour. Using the same value of a passenger's time and the average load factor defined above, the hourly value of passenger time applied in this calculation is \$55.06 or $\$31.46 \times 1.75$. Adding the aircraft operating cost and passenger time yields a value of \$119.81, so that \$119.81 is the hourly cost of an in-flight delay. On the basis of these values, the cost of delays experienced by pilots at College Park Airport is estimated to be about \$35,900 per year (2,400 annual operations x 0.25 x \$119.81 x 0.5 hour delay).

Accordingly, the combined cost of filing the flight plans, which includes the ground delays and in-flight delays attributed to the flight restrictions are estimated to sum to about \$171,900 per year. The FAA notes that the cost associated with filing these flight plans would rise if the total number of operations into this airport increases due to the additional transient operations. However, as the total number of flight plans within the SFRA would remain the same, this potential cost increase would imply a decrease in flight related filing plans at another airport within the SFRA.

Aggregate Costs

Complying with the requirements of the airspace restrictions contained in the former SFAR 94 would cost the College Park Airport an estimated \$1.80 million annually. This sum is comprised of \$1.62 million due to lost revenue and \$171,900 due to airspace restrictions.

B.2. Potomac Airfield (VKX)

The Potomac Airfield is a small privately owned, public-use airport located in Fort Washington, Maryland. Numerous businesses located at the airport provide a range of aviation services. These include passenger terminal and lounge facilities, fuel services, hangar facilities, parking, pilot supplies, aircraft maintenance, aircraft parts, aviation accessories, aircraft rentals, and flight instruction. The businesses located at the airport have traditionally attracted general aviation pilots seeking a broad scope of aviation services. The airport's location has made it highly desirable for fliers visiting the Washington Metropolitan area. Moreover, because of its proximity, the airport has traditionally attracted many pilots from Andrews Air Force Base. The Potomac Airfield Airport serves the needs of private pilots who use their aircraft for business purposes. The pilot population resides largely in the surrounding Maryland counties.

B.2.a. Cost of Operational Restrictions

In 2000, the Maryland Aviation Administration (MAA) recorded 52,925 total operations at Potomac Airfield Airport. Of this total, 98 percent or 51,866 were local operations and 1,059 or 2 percent were itinerant operations according to Maryland DOT data. The airport furnished financial and operational data for the eight-month period of January 1, 2002 to August 31, 2002; however, only the time from February 19, 2002, when the former SFAR-94 became operational, through August 31, 2002 are relevant to this analysis. These months of financial and operational data have been adjusted to show an assumed annual total.⁴³

⁴³ As with College Park, this adjustment is made by dividing the financial and aircraft operations data by 194 days and multiplying the results by 359 days, which equals 1.85.

The MAA data disclosed that at the end of 2000, 112 aircraft were based at the airport. By September 11, 2001, the number of based aircraft had grown to 118, flown by 400 pilots. When operations were resumed on February 19, 2002, only 60 aircraft and 150 pilots remained at VKX. As of August 31, 2002, eighteen additional aircraft had returned raising the total number of airplanes based at the airport to 78, while the number of pilots had increased to 223. Table 15 shows operations data for VKX for the base period, year 2000 and annualized data taken from the first 8 months of 2002. Activity declined by approximately 80 percent. As discussed above, the FAA assumes that the number of operations annualized from 2002 data remains constant for the period examined by this analysis.

	Base Period Year 2000	(2/19/02- 8/31/02) Annualized	Operational Change	Percentage Change
Local GA	51,866	10,500	(41,366)	-79.8%
Transient GA	1,059	0	(1,059)	-100.0%
Military	100	0	(100)	-100.0%
Air Taxi	Unknown	0	---	---
Total	53,025	10,500	(42,525)	-80.2%

Table 16 below compares gross revenues for 2000, to the latest available data shown by as for the eight-month period of January 1, to August 31, 2002 and annualized; this data is divided between airport revenues and other revenue. The FAA assumed that the revenues derived during the period examined in 2002 remains unchanged for the period examined by this analysis. The data has been adjusted to estimate an annual total.

	Gross Revenues			Annualized Dollar Change	Percentage Change
	Base Period (1/1/00-12/31/00)	Contrast Period (2/19/02-8/31/02)	Contrast Period Annualized		
Fuel Sales	\$210,600	\$105,000	\$129,500	(\$81,100)	-38.5%
Aircraft Storage Fees	\$206,000	\$105,000	\$129,500	(\$76,500)	-37.1%
Airport Total	\$416,600	\$210,000	\$259,000	(\$157,600)	-37.8%
Flight Instruction	\$87,000	\$22,000	\$27,100	(\$59,900)	-68.9%
Aircraft Maintenance	\$175,000	\$85,000	\$104,800	(\$70,200)	-40.1%
Aircraft Rental	\$344,000	\$87,000	\$107,300	(\$236,700)	-68.8%
Local Purchases	\$941,000	\$94,100	\$116,100	(\$824,900)	-87.7%
Misc. Sales	\$14,500	\$2,200	\$2,700	(\$11,800)	-81.4%
Other Revenue Total	\$1,561,500	\$290,300	\$358,000	(\$1,203,500)	-77.1%
Total Annual Revenue	\$1,978,100	\$500,300	\$617,000	(\$1,361,100)	-68.8%
plus 20 percent				(\$1,633,300)	

Certain data regarding the induced economic impact of the airport in the local economy were not available at this time. In particular, Table 16 does not include the decrease in taxes paid, the impact on employment, or any assessment of the reduction on personal and business income in the airport’s community stemming from the subject flight restrictions.⁴⁴ If these impacts were included, the magnitude of the negative economic effect of the current restrictions would increase substantially. As with the impact on the College Park Airport, the sum in Table 16 was increased by a factor of 20 percent to compensate for revenues losses not included in the analysis. Thus, the estimate of losses associated with complying with the operational restrictions is estimated to be \$1.63 million per year. The FAA does not have historical data on revenue growth at this airport. Accordingly, as discussed above, the FAA assumes no annual change in revenue from either the base period or the contrast period.

⁴⁴ Airport managers and operators of airport-related businesses estimate that local purchases by the airport and its tenants as well as local purchases from the airport have declined by approximately 90 percent.

B.2.b. Cost of Airspace Restrictions

Pilots would need to file flight plans and the requirements for flight plan filing are the same as those that were described above in the section for College Park. This requirement is causing pilots to spend additional time on the ground and in the air. Prior to the flight restrictions imposed by SFAR 94, 98 percent of pilots at Potomac Airfield Airport did not file flight plans, while those pilots filing flight plans did so infrequently. Pilots filing a flight plan must first call the Leesburg AFSS and subsequently contact Departure Control at Potomac TRACON (PCT) to receive a transponder code. After landing at another airport, prior to returning, these pilots are required to repeat the procedure above. Pilots are not allowed to call air traffic control while in the air. Obtaining AFSS and air traffic control clearance requires two telephone calls that routinely take 15 to 20 minutes. Factors contributing to ground delays include the time to complete the flight plan, radio frequency congestion from the AFSS and Departure Control, and delays in obtaining a transponder code. Information furnished by the airport reveals that pilots are routinely experiencing on average an additional 30 minutes of delay on the ground to comply with this requirement.

Pilots returning to the airport are experiencing flight delays. The airport's management estimates that 20 percent of flights are spending an additional 15 minutes in the air as a result of the operational restrictions. Prior to landing, aircraft must obtain clearance from approach control. PCT provides air traffic control services to Potomac Airfield Airport's traffic. As such, in-flight delays at Potomac Airfield Airport are less frequent. Factors contributing to flight delays include radio frequency congestion from the AFSS and unexpected frequency changes. These delays encompass additional aircraft operating and passenger time costs. The Potomac Airfield Airport recorded an average of 875 monthly operations for the period from when the airport reopened to August 31, 2002. As discussed above, the FAA assumes that the number of operations per month would remain constant, resulting in 10,500 total annual operations.

The value of a pilot's time is \$31.46 per hour. Given 10,500 flights per year, the annual flight plan filing cost is expected to be about \$16,500 ($10,500 \times \$31.46 \text{ per hour} \times 3 \text{ minutes}/60 \text{ minutes/hour}$).

In addition, there will be additional costs for ground and in-flight delays; they will be analyzed separately:

- Ground Delays— As described above in the discussion for College Park, the hourly value of passenger time applied in this calculation is \$55.06 or $\$31.46 \times 1.75$. The average on the ground delay is 30 minutes. Therefore, the cost of ground delay at Potomac Airfield Airport is estimated to be about \$289,100 ($10,500 \times \$55.06 \times 0.5 \text{ hour delay}$).

- In-flight Delays— As described above in the discussion for College Park, the hourly cost an in-flight delay is \$119.81. Thus, the cost of delays experienced by pilots at Potomac Airfield is estimated to be approximately \$62,900 per year (10,500 annual operations x 0.20 x \$119.81 x 0.25 hour delay).

Accordingly, the cost of filing the flight plans, which includes both the ground and in-flight delays attributed to the air traffic restrictions is estimated to be approximately \$368,500 (\$16,500 plus \$289,100 plus \$62,900) annually. As with College Park, the FAA notes that the cost associated with filing these flight plans would rise if the total number of operations into this airport increases due to the additional transient operations. However, as the total number of flight plans within the SFRA would remain the same, this potential cost increase would imply a decrease in flight related filing plans at another airport within the SFRA.

Aggregate Costs

Complying with the airspace restrictions would cost the Potomac Airfield an estimated \$2.00 million annually. This is comprised of \$1.63 million due to lost revenue and \$368,500 due to airspace restrictions.

B.3. Washington Executive /Hyde Field Airport (W32)

Washington Executive/Hyde Field Airport is a small privately owned, public-use airport located in Clinton, Maryland. The airport largely serves the needs of private pilots who occasionally fly for business reasons. These pilots reside in the surrounding Maryland counties. A broad array of aviation and flight services is located on the airport's premises. These businesses provide fuel services, hangar facilities, parking, pilot supplies, aircraft maintenance and modification, aircraft parts, aviation accessories, aircraft rentals, flight training, and sightseeing tours. Pilots based at Hyde Field and other airports have traditionally used the businesses at the airport. The airport's location has made it highly desirable for pilots visiting the Washington Metropolitan area. This airport was closed longer than the other two. Operations resumed at Hyde Field on March 2, 2002. However, on May 17, 2002, the airport was closed again because of a security violation. The airport reopened on September 28, 2002. As a consequence of the two closings, and the short interval since the latest reopening, only limited financial and operational data were accessible from the airport and its tenants.

B.3.a. Cost of Operational Restrictions

In the year 2000, the Maryland Aviation Administration recorded 38,000 total operations at Washington Executive/Hyde Field. Of this total, 91 percent or 34,580 were local operations and 3,420 or 9 percent were itinerant operations.

The airport furnished limited financial and operational data for the eight-month period of January 1, 2002 to August 31, 2002. Since the September 28th reopening, the airport has furnished an additional two weeks of financial and operational data, starting on September 28 and extending to October 12, 2002. Thus, in the 8 months and additional 2 weeks, the airport operated for 92 days. The FAA multiplied the financial and operational data by 3.97 to annualize the data.⁴⁵

The data furnished by the airport show that at the end of 2000, 116 aircraft were based at the airport. By the September 11, 2001, date of the first closing, the number of based aircraft had not changed. About 400 pilots flew the 116 aircraft. When operations resumed on March 2, 2002, only 22 aircraft and 70 pilots remained. By the second closing on May 17, 2002, 22 additional aircraft had returned raising the total number of airplanes based at the airport to 44. Approximately 40 pilots had returned by the second closing date raising the number of pilots at the airport to 110, or 28% of the pre-September 11 levels.

Table 17 shows the activity at Hyde Field for a base period, year 2000 and an annual estimate for the period covered by this rule. Activity is projected to decline by 55 percent. As discussed above, the FAA assumes that the number of operations annualized from 2002 data remains constant for the period examined by this analysis.

	Base Period Year 2000	Annual Projected Period	Operational Change	Percentage Change
Local GA	34,580	17,000	(17,580)	-50.8%
Transient GA	1,900	0	(1,900)	-100.0%
Military	760	0	(760)	-100.0%
Air Taxi	760	0	---	---
Total	38,000	17,000	(21,000)	-55.3%

The airport's management estimated that by May 17, 2002, total airport revenues had declined by more than 80 percent. Fuel sales for 2000 totaled \$180,000. Fuel sales were \$48,000 for the 8 months from February 13th to September 27, 2002. Despite the airport's closure, some fuel sales continued because of special permit operations. Between the September 28th reopening date and October 12, 2002, the airport sold an additional \$1,500 in fuel. Thus, the combined total in fuel sales over the eight and a half-month period is \$49,500. To take into account the

⁴⁵ This is calculated by dividing 365 days by 92 days. The FAA used 2.35 for estimating costs for the first year; this was obtained by adding the remaining 124 days to the 92 days with data and dividing that total by 92 days.

special permit fuel sales, the FAA estimated the annualized fuel sales by multiplying by 3.33, rather than by 3.97,⁴⁶ so that estimated annual fuel sales were \$164,800. As such, fuel sale revenues have dropped from \$180,000 in 2000 to \$164,800 annually.

Based on paucity of available information, the FAA was unable to estimate aircraft storage fees using a single approach, so the FAA needed to consider two methodologies:

- As noted above, the number of pilots is down by 72%, from 400 to 110, so, by this approach, storage fees should be down by 72% from the 2000 level of \$180,000, yielding \$50,400 (calculation: \$180,000 times 28%). However, given actual fees of \$51,000 from the time that this airport was been open through October 12, 2002, a total of about 7 months, an annualized total of \$50,400 makes no sense.
- An alternative approach is to multiply \$51,000 by the aforementioned 3.97, yielding \$202,500, but that would put the projected annualized total for a restricted Washington Executive/Hyde higher than the actual total in 2000 of \$180,000.

Without better data, the FAA decided to estimate aircraft landing fees by taking the average of these two approaches, resulting in projected fees of \$126,500 (\$50,400 plus \$202,500 divided by 2).

The revenue data for Table 18 is divided between airport revenues and other revenue. It does not include the reduction on taxes paid, the impact on employment, or any assessment of the reduction in personal and business income in the airport's community related to the subject flight restrictions. Also excluded is financial information from departed tenants and airport service providers. Table 18 compares gross revenues for 2000 to the latest available data collected for the period of February 19th to October 12, 2002. Barring any further difficulties, the airport will have been open about seven months by the end of the original SFAR's effective date of February 13, 2003.⁴⁷ As Table 18 shows, much of the financial information is not available and few conclusions about the different categories of revenue can be drawn from the paucity of data.

⁴⁶ For the first year of operations, due to this additional fuel sale, the FAA annualized the fuel sale revenue by multiplying by 2, rather than by 2.35. The FAA used the approximately same ratio to annualize the fuel sales for the entire year, and so rounded the factor to be multiplied to 3.33 rather than using 3.97.

⁴⁷ Through October 12, 2002, the airport was open for 92 days. There are an additional 124 days from October 13, 2002 through February 13, 2003, equaling a total of 216 days, so if the airport stays open continuously from October 13, it will have been open a little over 7 months.

Table 18 – Washington Executive Airport/Hyde Field Revenue Data					
	Gross Revenue				
	Base Period (1/1/00- 12/31/00)	Projected Period (2/19/02 - 10/12/02)	Projected Period annualized	Dollar Change	Percentage Change
Fuel Sales	\$180,000	\$69,900	\$164,900	(\$15,100)	-8.4%
Aircraft Storage Fees	\$180,000	\$51,000	\$126,500	(\$53,550)	-29.8%
Landing Fees	\$500	\$0	\$0	(\$500)	-100.0%
Airport Total	\$360,500	\$100,500	\$291,300	(\$69,200)	-19.2%
Flight Instruction	n/a		n/a	---	---
Major Airframe Service	n/a		n/a	---	---
Major Powerplant Service	n/a		n/a	---	---
Charter Flights	n/a		n/a	---	---
Sightseeing Flights	n/a		n/a	---	---
Misc. Sales	\$12,500	\$0	\$0	(\$12,500)	-100.0%
Other Revenue Total	\$12,500	\$0	\$0	(\$12,500)	-100.0%
Total Annual Revenue	\$373,000	\$100,500	\$291,300	(\$81,700)	-21.9%
Average cost at College Park and Potomac				(\$1,516,400)	
Total				(\$1,598,100)	

Data for fuel and miscellaneous sales were available at all 3 airports. Thus, the extrapolations from the other two airports need to be adjusted; the fuel and miscellaneous sales data were subtracted from the College Park and Potomac financial loss totals yielding annual losses (including the 20% adjustment) for all other costs of \$1.51 and \$1.52 million, respectively, averaging \$1.52 million. This figure needs to be added to the calculated estimated operating loss of \$81,700 that was calculated in Table 18.⁴⁸ Therefore, the estimate of losses associated with complying with the operational restrictions of the former SFAR 94 for the Washington Executive Airport/Hyde Field is estimated to be \$1.60 million for each of the two years examined by this analysis. The FAA does not have

⁴⁸ This is the sum of the dollar change amount of fuel sales, aircraft storage fees, landing fees, and miscellaneous sales as shown in Table 18.

historical data on revenue growth at this airport. Accordingly, as discussed above, the FAA assumes no annual change in revenue from either the base period or the contrast period.

B.3.b. Cost of Airspace Restrictions

Pilots would need to file flight plans, and the requirements for flight plan filing are the same as for those that were described above in the section for College Park. Pilots departing from and returning to the Washington Executive Airport must call the AFSS and air traffic control. This requirement is causing pilots to spend additional time on the ground and in the air. Prior to the flight restrictions, 95 percent of pilots at Washington Executive Airport did not file flight plans. Pilots filing a flight plan must first call the Leesburg AFSS and then contact Departure Control at PCT to receive a transponder code. A pilot taking from another airport and returning to a Washington area airport must repeat the procedure above. Pilots are not allowed to request clearance while in the air. Obtaining AFSS and air traffic control clearance requires two telephone calls that routinely take 15 to 20 minutes. Factors contributing to ground delays include the time to complete the flight plan, time lost due to radio frequency congestion from the AFSS and Departure Control, and time lost due to delays in obtaining a transponder code. Information furnished by the airport reveals that pilots experienced on average an additional 30 minutes of delay on the ground to comply with this requirement.

Pilots returning to the airport are experiencing flight delays. The airport's management estimates that 20 percent of flights are spending an additional 15 minutes in the air as a result of the operational restrictions. Prior to landing, aircraft must obtain clearance from approach control. Potomac TRACON (PCT) controls Washington Executive Airport's traffic. Factors contributing to flight delays include radio frequency congestion from the AFSS and unexpected frequency changes. These delays encompass additional aircraft operating and passenger time costs. The airport recorded 7,300 operations during the eight-months from January 1, 2002 to August 31, 2002. As noted above, for a majority of these eight months, the airport was closed. However, some special permit operations continued. From its September 28, 2002 reopening through October 12, 2002, the airport recorded 1,200 additional operations. Thus, the combined number of operations through October 12, 2002 was 8,500 or 7,300 plus 1,200. When annualized, the 8,500 operations yields 17,000 flights (8,500 x 2),⁴⁹ which the FAA assumes remains constant for the time period examined by this analysis.

⁴⁹ There are 225 days from March 2, 2002, when the airport reopened, to October 12, 2002, or about 7 ½ months. Despite the fact that the airport was closed for part of this time, some special permit operations continued. Hence, without knowing exactly how many days that there were flights in and out of the airport, the FAA will base projections on operations having taken place for approximately 6 months, and will annualize the number of operations by multiplying by 2.

The value of a pilot's time is \$31.46 per hour. Given 17,000 flights per year, the annual flight plan filing cost is expected to be about \$26,700 (17,000 x \$31.46 per hour x 3 minutes/60 minutes/hour).

In addition, there will be additional costs for ground and in-flight delays; they will be analyzed separately:

- Ground Delays—As described for the other two airports, the hourly value of passenger time per operation applied in this calculation is \$55.06 or $\$31.46 \times 1.75$. The average on the ground delay is 30 minutes. Therefore, the cost of ground delay at Washington Executive Airport is estimated to be approximately \$468,000 (17,000 operations x \$55.06 x .5 hour delay).

- In-flight Delays—As described above for the other two airports, the hourly cost of an in-flight delay is \$119.81. Twenty percent of operations experience in-flight delays that average 15 minutes (or .25 hours). On the basis of these values, the cost of in-flight delays experienced by pilots at Washington Executive Airport is estimated to be about \$101,800 (17,000 annual operations x 20% x \$119.81 x .25 hour delay).

Therefore, the cost of filing the flight plans, which includes both the ground and in-flight delays attributed to air traffic restrictions is estimated to be approximately \$596,500 (\$26,700 plus \$468,000 plus \$101,800) per year. As with the other two airports examined in the text above, the FAA notes that the cost associated with filing these flight plans would rise if the total number of operations into this airport increases due to the additional transient operations. However, as the total number of flight plans within the SFRA would remain the same, this potential cost increase would imply a decrease in flight related filing plans at another airport within the SFRA.

Aggregate Costs

Complying with the flight restriction requirements would cost the Washington Executive Airport/Hyde Field an estimated \$2.19 million annually. This figure is comprised of \$1.60 million due to lost revenue and approximately \$596,500 due to airspace restrictions.

B.4. Costs to the Government

Flight service station specialists would need to process the flight plans. As discussed above, the FAA is assuming it takes a specialist 3 minutes to process a plan. Assuming 29,900 flights per year as shown in Tables 13, 15, and 17, annual

costs sum to approximately \$70,800.⁵⁰ As discussed above, the FAA notes that the cost associated with filing these flight plans would rise if the total number of operations into these airports increases due to the additional transient operations. However, as the total number of flight plans within the SFRA would remain the same, this potential cost increase would imply a decrease in flight related filing plans at other airports within the SFRA.

Total Costs

Annual costs sum to \$6.06 million as shown in Table 19. These costs would rise if the total number of operations and the resultant revenue increase at these three airports due to the additional transient operations; however, increases in operations and revenue at these 3 airports implies a decrease in both at other airports within the SFRA.

Table 19 – Total Annual Costs			
Entity	Cost of Flight Plans	Cost of Operational	Total Costs
College Park	\$171,875	\$1,624,400	\$1,796,275
Potomac Airfield	\$368,517	\$1,633,300	\$2,001,817
Washington Executive/Hyde	\$596,541	\$1,598,100	\$2,194,641
Total Cost to the airports	\$1,136,933	\$4,855,800	\$5,992,733
Government Agencies			\$70,818
Total Cost per year			\$6,063,551

Costs will be spread out over ten years; as shown in Table 20, the ten-year costs sum to \$60.64 million (\$42.55, discounted):

⁵⁰ The total flights include 2,400 from College Park, 10,500 from Potomac, and 17,000 from Washington Executive/Hyde. Hence, 29,900 flights x 3 minutes filing per flight x \$47.37/hour equals \$70,818.

Year	Costs	Discount Factor	Discounted Costs
2004	\$6,063,551	0.9346	\$5,666,870
2005	\$6,063,551	0.8734	\$5,296,140
2006	\$6,063,551	0.8163	\$4,949,664
2007	\$6,063,551	0.7629	\$4,625,854
2008	\$6,063,551	0.7130	\$4,323,228
2009	\$6,063,551	0.6663	\$4,040,400
2010	\$6,063,551	0.6227	\$3,776,075
2011	\$6,063,551	0.5820	\$3,529,042
2012	\$6,063,551	0.5439	\$3,298,170
2013	\$6,063,551	0.5083	\$3,082,402
Total	\$60,635,510		\$42,587,844

C. Other DC SFRA/FRZ-related costs

There are approximately 150 airports and heliports within the DC SFRA/FRZ. College Park, Potomac, and Washington Executive/Hyde are in both the SFRA and the FRZ, and the costs for these airports have already been discussed above. However, there are additional costs, both for pilots flying within the DC SFRA/FRZ and for the other airports within the zone.

C.1. Costs for pilots – There are proposed communications requirements for all pilots. All operations, whether VFR or IFR, would now have to file plans. In addition, all VFR aircraft would have to be transponder equipped when entering the DC SFRA and maintain two-way communications while flying in the DC SFRA.

Pilots flying VFR would have to file flight plans to fly within the DC SFRA/FRZ. These are new costs. Pilots flying VFR would have to file flight plans to fly within the DC SFRA/FRZ. These are new costs. Records from Leesburg AFSS (DCA AFSS) show operational increases associated with DC ADIZ/FRZ flight plans as shown in Table 21:⁵¹

	2001	2002	2003	Increase
February	7,604	7,708	9,300	1,696
May	10,461	12,163	16,091	5,630
July	8,767	9,865	21,195	12,428

⁵¹ Leesburg files 100% of the FRZ flight plans, however, there is no method in place to differentiate between flight plans filed to operate within the FRZ and those filed to egress/ingress/transit the ADIZ.

October	12,739	11,478	21,906	9,167
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The FAA calculated annual increases in flight plans by using the four months shown in Table 21 as proxies for Winter, Spring, Summer, and Autumn, respectively. The values for each of the four months were rounded to the closest hundred and multiplied by three (for the number of months in a season). Thus, the total number of flight plans for 2001 sums to 118,800 and for 2003 sums to 205,500.⁵²

The FAA further assumed that Leesburg AFSS filed the great majority of flight plans in the Eastern Region, (approximately 90%), and that the Eastern Region, in turn, files about 90% of all the flight plans filed for the Washington ADIZ.⁵³ To calculate the increased flight plan activity for Altoona (AOO), Buffalo (BUF), Elkins (EKN), Islip (ISP), Millville (MIV) and Williamsport (IPT) AFSS's, 10% of the flight plans filed by Leesburg was used for each AFSS. Thus, the total number of flight plans for these 6 AFSS's was assumed to be 71,280 for 2001 (6 x 0.1 x 118,800) and 123,300 for 2003 (6 x 0.1 x 205,500). Another 10% was added to the sum of the Leesburg AFSS and these other 6 AFSS's to account for all other AFSS's in the Continental U.S. (CONUS), or an additional 19,008 for 2001 and 32,880 for 2003.

Thus, the total number of flight plans for 2001 was assumed to be 209,088 (118,800 + 71,280 + 19,008) and for 2003 was assumed to be 361,680 (205,500 + 123,300 + 32,880), with the difference being 152,592. To calculate costs, the FAA grew these additional numbers of flight plans at 1.2%, equaling about 153,765 in 2004 and reaching 164,960 by 2013.

However, the flight plans required for all operations at the 3 Maryland airports covered by the former SFAR 94 are part of this total and, since they were covered above, need to be subtracted. As shown in Tables 13, 15, and 17, they currently sum to 29,950 annually; as noted above, the FAA assumed that operations at these airports would not increase over time. Table 22 shows the total anticipated additional flight plans from 2004 to 2013:

⁵² For 2001, this is calculated by adding the amounts for Winter (3 x 7,600), Spring (3 x 10,500), Summer (3 x 8,800), and Autumn (3 x 12,700). For 2003, this is calculated by adding the amounts for Winter (3 x 9,300), Spring (3 x 16,100), Summer (3 x 21,200), and Autumn (3 x 21,900).

⁵³ This assessment was determined by comparing the average flights handled by PCT, and the ratios of flight plans originated by DCA AFSS and the other six AFSS's in the Eastern Region.

Year	Monthly Additional Flight Plans	Annual Additional Flight Plans	Annual Maryland-3 Airports Flight Plans	Adjusted Annual Additional Flight Plans
2004	12,814	153,765	29,950	123,815
2005	12,913	154,952	29,950	125,002
2006	13,013	156,152	29,950	126,202
2007	13,114	157,367	29,950	127,417
2008	13,216	158,596	29,950	128,646
2009	13,320	159,839	29,950	129,889
2010	13,425	161,097	29,950	131,147
2011	13,531	162,370	29,950	132,420
2012	13,638	163,657	29,950	133,707
2013	13,747	164,960	29,950	135,010

The FAA does not know how many of these are from VFR operations that now have to file flight plans. Data from the Leesburg AFSS shows that for the four full months since the introduction of the DC ADIZ, there were an average of 3,553 pilots flying VFR monthly,⁵⁴ well within the 12,700+ additional flight plans shown in Table 22.

As with the pilots flying in and out of the 3 Maryland airports formerly covered by SFAR 94, pilots will experience ground delay and in-flight delay as well as having to file flight plans. The FAA does not have good data on the average ground delay for pilots flying VFR. However, a sampling of pilots at Leesburg AFSS suggests that 10 to 25 minute delays are not uncommon.⁵⁵ In contrast, the average delay for

⁵⁴ The source of this data is *The Air Traffic Activity Data System (ATADS)*, which is the official source of historical air traffic operations for center, airport, instrument and approach counts. It is available and can be referenced at <http://www.apo.data.faa.gov>.

⁵⁵ Pilots cannot depart without first getting a clearance and beacon code from Air Traffic Control (ATC). Pilots currently in the FRZ tend to report longer delays due to a number of factors, including:

- Getting through to ATC may, at times, be problematic due to busy lines/signals;
- Proximity of the FRZ to the Washington metropolitan area may cause more stringent security procedures, which are more time consuming;
- It may also be more difficult to guide the pilots not only out of the FRZ, but the ADIZ as well, especially when considering the number of IFR aircraft in the area and the proximity of Andrews AFB, and Reagan National, Baltimore and Dulles Airport traffic, to the FRZ; and
- Controller workload may also be a factor.

the three Maryland airports subject to former SFAR 94 is 40 minutes.⁵⁶ The FAA will base costs on this 10 to 25 minute range and use the average of a 17½-minute delay. Thus, in 2004, the cost of ground delays for these pilots is estimated to be approximately \$1.97 million (123,815 flight plans x \$55.06 x 0.2917 hour delay).

In-flight Delays—As described above, the hourly cost of an in-flight delay is \$119.81. The FAA does not have good data on the average in-flight delay for pilots flying VFR. However, random sampling of pilots shows that delays averaging 10 minutes are not uncommon.⁵⁷ This is in contrast with an average of 4½ minutes for the three Maryland airports subject to the former SFAR 94.⁵⁸ On the basis of this factor, the cost of in-flight delays experienced by these pilots in 2004 is estimated to be about \$2.45 million (123,815 operations x \$119.81 x 0.167 hours).

As noted above, the FAA assumes that it takes a total of 6 minutes for a pilot to file a flight plan and the flight service station specialists to process it. For computational purposes, the FAA will divide these 6 minutes in half – attributing half to the pilot and half to the flight service station specialist. Pilot filing time in 2004 is estimated to be \$192,900 (123,815 operations x \$31.46 x 0.05 hours).

Therefore, the annual cost for filing the flight plans, which includes both the ground and in-flight delays attributed to air traffic restrictions is estimated to be approximately \$4.61 million (\$1.97 million plus \$2.45 million plus \$192,900), resulting from 123,815 delays in 2004, and ten year due to flight delays sums to \$48.63 million (\$33.98 million, discounted).

Flight service station specialists would need to process the flight plans. Assuming 3 minutes per plan and assuming the number of flights shown in Table 22, costs in

⁵⁶ The average ground delay at College Park has been 1 hour, while it has been 30 minutes at Potomac and Washington Executive/Hyde. An arithmetic average for these three airports is 40 minutes.

⁵⁷ Random sampling of pilots, local flying schools, and airport managers resulted in a significant variety of responses. Controller workload seemed to be the determining factor. Pilots either reported minimal delays of 5-7 minutes or, as reported in a recent informal survey of flying schools, instructors, and businessmen pilots, in the neighborhood of 17 minute air delays in getting a beacon code and clearance. Pilots flying in the FRZ claimed the longer waiting times. Hence, the FAA is taking an average between the two figures and is using 10 minutes as the average delay. As with ground delays, the variables include controller workload, congestion, and/or weather.

⁵⁸ At College Park, this combined factor is calculated by multiplying 25% of operations experiencing a delay times half an hour, or 0.125 (0.25 x 0.5 hours). At both Potomac and Washington Executive/Hyde, this combined factor is calculated by multiplying 20% of operations experiencing a delay times a quarter of an hour, or 0.05 (0.2 x 0.25 hours). An arithmetic average for these three airports is 0.075.

2004 sum to approximately \$293,300.⁵⁹ Over ten years, the cost to process the flight plans sums to \$3.06 million (\$2.14 million, discounted).

Total costs from these additional flight filings sums to \$51.70 million, as be seen in Table 23; the column labeled ‘Adjusted Annual Additional Flight Plans’ is based on Table 22.

Year	Adjusted Annual Additional Flight Plans	Cost per Operations for pilots	Cost per Operations for flight service station	Total Cost per Operations	Discount rate	Discounted Cost
2004	123,815	\$4,656,228	\$293,256	\$4,949,483	0.9346	\$4,625,685
2005	125,002	\$4,700,866	\$296,067	\$4,996,934	0.8734	\$4,364,515
2006	126,202	\$4,745,994	\$298,909	\$5,044,903	0.8163	\$4,118,144
2007	127,417	\$4,791,686	\$301,787	\$5,093,473	0.7629	\$3,885,786
2008	128,646	\$4,837,904	\$304,698	\$5,142,602	0.7130	\$3,666,604
2009	129,889	\$4,884,648	\$307,642	\$5,192,291	0.6663	\$3,459,842
2010	131,147	\$4,931,957	\$310,622	\$5,242,579	0.6227	\$3,264,815
2011	132,420	\$4,979,830	\$313,637	\$5,293,467	0.5820	\$3,080,846
2012	133,707	\$5,028,229	\$316,685	\$5,344,914	0.5439	\$2,907,279
2013	135,010	\$5,077,230	\$319,771	\$5,397,002	0.5083	\$2,743,562
Total		\$48,634,573	\$3,063,074	\$51,697,647		\$36,117,079

The FAA is aware that additional circumstances may modify the number of flight plans filed and change these costs; these include:

- Some pilots, instead of flying into the DC SFRA/FRZ and having to file a flight plan, may choose to circumnavigate it. While they wouldn’t have the aforementioned flight plan filing costs, flying around it would entail additional time and fuel costs;
- Other pilots may simply choose to fly less, rather than going through the additional work of filing a plan; and
- There are 12 fringe airports that the proposed rule would allow the aircraft to follow different procedures, thus reducing the number of flight plans that would need to be filed.⁶⁰

It is not clear whether these additional circumstances would increase or decrease total costs.

⁵⁹ This is the produce of 123,815 flights x 3 minutes x \$47.37/hour.

⁶⁰ The "fringe" airports are, in Maryland, Albrecht, Martin, Martin State, Mylander, Stewart, St. John, Tilghman Whipp, and Wolf; and in Virginia, Arlie, Harris, Meadows, Upperville.

Total additional quantifiable costs for pilots filing flight plans sum to \$51.70 million (\$36.12 million, discounted). The FAA calls for comments on:

- the total number of additional flight plans in the SFRA/FRZ;
- the average ground and in-flight delays encountered flying in the SFRA/FRZ; the FAA is particularly interested in the experience of VFR pilots;
- the amount of time it takes for a VFR pilot to file a plan;
- the amount of time it takes pilots to file a plan; again, the FAA is particularly interested in the experience of VFR pilots;
- the reduction in the number of flight plans filed due to these fringe airports; and
- the net results of pilots circumventing the DC SFRA/FRZ.

The FAA requests that all comments be accompanied by full documentation.

The recent TSA rule allows pilots who are not based at the Maryland-3 to operate to/from those airports given specific security-related procedures. To the extent that those pilots in the past couple of years have wanted to fly and land near downtown Washington (in the FRZ) they could not; however, they could take off or land at an airport within the SFRA but outside the FRZ.

In the discussions above, the FAA has already factored in the costs related to these flight plans. Whether the pilot takes off or lands from one of the Maryland-3 or another airport within the SFRA, they would still need to file a flight plan. The FAA does not believe that the recent TSA rule would increase the total number of flights within the SFRA. In other words, the Agency believes that these pilots, without the recent TSA rulemaking, would still have wanted to fly into/out of the DC area, albeit from an airport outside the FRZ.

Table 22 shows the total number of additional annual flights in the SFRA, broken down by those impacted by the former SFAR-94 and all others. If there are additional transient operations to the Maryland-3 airports, these would come at the expense of those that would have gone to other airports within the SFRA. So while the actual number of flights to the Maryland-3 and to the other airports within the SFRA may change, the total number of flights within the SFRA would not. While the costs estimated and projected for the Maryland-3 and the other airports may change, the total costs related to these operations (in-flight delays, on-the-ground delays, and flight plan processing) would not change.

The FAA calls for comments as to whether the total number of operations within the SFRA would increase as a result of the recent TSA rulemaking. The FAA requests that all comments be accompanied by full documentation.

C.2. Costs for small airports – As mentioned above, there are approximately 150 airports and heliports in the DC SFRA, most of which do not keep operations records. Given the additional requirements that GA pilots face, the FAA is concerned that many of these airports would have fewer operations, resulting in a loss of revenue. In some cases, some of these pilots would fly to alternative, nearby airports just outside of the proposed DC SFRA in place of those just inside the proposed DC SFRA, resulting in an increase in operations and revenue for these alternative airports.

The FAA does not have data as to how many operations and much revenue loss has occurred at airports within the DC SFRA/FRZ since February 2003 and also does not have the same type of data on those airports near to but outside of the DC SFRA/FRZ for the same time period. Accordingly, the FAA calls for comments from both small airports and GA pilots on the effect of the DC SFRA/FRZ on these airports; the FAA requests that all comments be accompanied by full documentation.

TOTAL COSTS

As shown in Table 24, total quantifiable costs sum to \$296.60 million (\$207.41 million, discounted) over ten years. As discussed above, the FAA recognizes that there may be additional costs, but lacks the data to adequately discuss and quantify them, and so has called for comments on these topics.

Year	Air Traffic	Airports currently impacted by the former SFAR 94	Additional aircraft and airports	Total Costs	Discount rate	Discounted Costs
2004	\$17,701,460	\$6,063,551	\$4,949,483	\$28,714,494	0.9346	\$26,835,976
2005	\$17,818,161	\$6,063,551	\$4,996,934	\$28,878,645	0.8734	\$25,223,727
2006	\$17,946,367	\$6,063,551	\$5,044,903	\$29,054,821	0.8163	\$23,717,389
2007	\$18,074,573	\$6,063,551	\$5,093,473	\$29,231,597	0.7629	\$22,300,645
2008	\$18,202,779	\$6,063,551	\$5,142,602	\$29,408,932	0.7130	\$20,968,162
2009	\$18,471,112	\$6,063,551	\$5,192,291	\$29,726,953	0.6663	\$19,808,324
2010	\$18,599,318	\$6,063,551	\$5,242,579	\$29,905,448	0.6227	\$18,623,610
2011	\$19,019,156	\$6,063,551	\$5,293,467	\$30,376,174	0.5820	\$17,679,210
2012	\$19,147,489	\$6,063,551	\$5,344,914	\$30,555,954	0.5439	\$16,620,415
2013	\$19,287,454	\$6,063,551	\$5,397,002	\$30,748,007	0.5083	\$15,630,727
	\$184,267,869	\$60,635,509	\$51,697,647	\$296,601,025		\$207,408,185

IV. ANALYSIS OF BENEFITS

This proposed rule is intended to provide an increased level of security against the threat of airborne terrorist attacks. The primary benefit of the proposal would be enhanced protection for a significant number of government assets and infrastructure in the National Capital Region. The security provisions and flight restrictions contained in this rule are an integral part of the effort to identify and defeat the threat posed by terrorists.

For the past two decades, the major goal of aviation security has been the prevention of in-flight bombings and acts of sabotage. Thus, the major line of defense against an aviation-related criminal or terrorist act has been the prevention of an explosive or incendiary device from getting on board an airplane. The February 1993 attack on the World Trade Center (WTC) raised public awareness that the scope of the foreign terrorist threat in the U.S. was more serious and technically more sophisticated than previously thought. The ensuing investigation revealed that foreign terrorists operating in the U.S. are capable of building sophisticated explosive devices and covertly carrying out their plans. The attacks of September 11, 2001, introduced the specter of terrorists using civil aviation aircraft as a missile against civilian targets, government control centers, political targets, and economic, and/or socially prominent assets. This raises concern regarding the vulnerability of critical government and military facilities to the threat of terrorism. National security demands that a terrorist strike within the National Capital Region must be considered, given the potential targets and the severity of the potential consequences.

The experience of the past 30 years combating acts of air piracy confirms that the losses associated with aircraft bombings and hijackings are identifiable, measurable, and confined. The cost of a catastrophic terrorist act against a civilian aircraft can be estimated in terms of lives lost, property damage, decreased public utilization of air transportation, etc. A terrorist attack using a weapon of mass destruction on an urban area would inflict casualties and property damage on a far greater scale than any act perpetrated against a commercial aircraft. If successful, the economic impact would be enormous as demonstrated by the September 11, 2001, attacks. However, even if such an attack failed, there would be a direct economic cost of reduced travel and tourism due to individuals' perceptions of reduced safety and security.

The following analysis describes an attempt at describing some of the elements involved with the impact of a small general aviation aircraft within the National Capital Region. The FAA recognizes that such an impact may not cause substantial damage to property or a large structure; however, it could potentially

result in an undetermined number of fatalities and injuries and a potential economic impact.

The FAA will examine three areas – the direct and indirect costs of the September 11 attacks, the reduction in D.C. tourism, and the impact on air traffic.

Costs of the September 11 attacks – How much did the September 11 terrorist attack cost America? Certainly, the destruction of the WTC and the Pentagon, along with the costs of the airplanes, the clean up, and economic impacts such as layoffs are among the direct costs. Some of the indirect costs include reduced tourism, the Federal Government bail-out of the commercial airlines and increased spending on security, increased insurance premiums, and the computation of lost earnings, as well as some of the slow down in the economy. A hard to quantify cost would include a greater sense of vulnerability; part of this can be captured in some of the aforementioned indirect costs, such as the increased spending on domestic security and increased insurance premiums, as well as the war on terrorism. In doing so, the FAA referenced three different studies:

- 1) According to Peter Navarro and Aron Spencer, in mid-May 2002, counting the value of lives lost as well as property damage and lost production of goods and services, losses already exceed \$100 billion.⁶¹
- 2) According to John R. Jameson, PhD, the total estimated impact of the September 11 strikes through September 2003, including both direct and indirect costs sum to \$640 billion.⁶²
- 3) According to Brian S. Wesbury, Chief Economist, Griffin, Kubik, Stephens & Thompson, Inc., as of September 2002, the short-term impact of the September 11, 2002 attacks was tremendous; unlike the other two studies cited above, he didn't list and then sum up the individual direct and indirect cost components, rather, he looked at the overall impacts to the economy.⁶³ For instance, total losses of life and property cost insurance companies an estimated \$40 billion.

The three major D.C. area airports were the hardest hit of all the major U.S. airports, and of these, Reagan National Airport (DCA) was impacted the most. For the ten days before September 11, 2001, there were an average of 430 over 60-

⁶¹ Source: Peter Navarro and Aron Spencer, "September 11, 2001: Assessing the Costs of Terrorism," Milken Institute Review, Fourth Quarter 2001, Milken Institute, as quoted in The Cost of Terrorism, Daily Policy Digest, Terrorism Issues, May 15, 2002.

⁶² "September 11, 2001: Then and Now", John R. Jameson, PhD, *Online Journal of Issues in Nursing*, article published September 30, 2002.

⁶³ "The Economic Cost of Terrorism" by Brian S. Wesbury, Chief Economist, Griffin, Kubik, Stephens & Thompson, Inc., September 10, 2002. (Source: International Information Programs Electronic Journal "September 11: One Year Later" issued in September 2002. The website is <http://www.usinfo.state.gov/journals/itgic/0902/ijge/ijge0902.htm>).

seat part 121 scheduled carriers operations a day at DCA. The airport was closed until early October, and daily operations for these large airplanes averaged 125 for the first week it was open; it wasn't until the end of October that daily operations reached 200. Six months after September 2001, for the month of February 2002, daily operations, for the over 60-seat part 121 airplanes, was at 350, or 83% of its September level.⁶⁴ In sum, the cost impact was major, not only for the airlines involved, but for the airport, the airport and air carrier support services (such as food service and fuel sales), and the surrounding community and its businesses.

The entire air transportation network lost almost \$1.5 billion for the two-and-a-half days that the network was shut down. Industry analysts estimated the anticipated accumulated losses for the airline industry from 2001 to 2004 at more than \$30 billion.⁶⁵ Partially as a result, both US Airways and United Airlines have had to file for Chapter 11 bankruptcy. About 20 percent of aircraft have been idled and more may be mothballed in the near future. Additional job cuts also may be needed beyond the 100,000 layoffs undertaken since the terrorist attacks.⁶⁶

While it is difficult to come up with an exact total, it is clear that the direct financial impact from the September 11 attacks has been in the tens of billions of dollars, while the indirect financial impact has been in the hundreds of billions of dollars. The following costs, as shown in Table 25, taken from the studies by Navarro & Spencer and Jameson, are among the direct impacts of the terrorist attacks:

Low	High	
\$7,000	\$7,000	Payout by the Federal Government
\$14,000	\$14,000	Computers, office furniture & machines and lost inventory
\$385	\$385	Destruction of the four commercial airplanes
\$1,500	\$1,500	Shutdown of commercial airline industry
\$3,750	\$15,000	Rebuild WTC
\$14,000	\$14,000	Rebuild surrounding buildings
\$520	\$1,000	Rebuild Pentagon
\$8,000	\$11,500	Damage to public works, infrastructure, and other property
\$750	\$1,300	Clean-up of WTC complex
\$49,905	\$65,685	TOTAL

⁶⁴ The source for all these operations was ATADS.

⁶⁵ David Swierenga, as quoted in Keith L. Alexander, For Airlines, 9/11's Impact Lingers: Price Competition, Weak Economy Add to Pressures, The Washington Post, September 11, 2003.

⁶⁶ Keith L. Alexander, For Airlines, 9/11's Impact Lingers: Price Competition, Weak Economy Add to Pressures, The Washington Post, September 11, 2003.

Reduction in D.C. tourism – economic impact – Terrorist attacks could result in the loss of revenue due to a decrease in travel and tourism. The negative impact that a terrorist attack, successful or not, would have on tourism is quantifiable. The heightened state of alert that follows a terrorist strike is typified by halted public tours, obstructed streets, off limit public buildings, closed down landmarks, and increased public apprehension. After the September 11th attacks, tours at the Capitol Building were curtailed and tourism as a whole declined.

The U.S. National Park Service and the District of Columbia Government’s Office of Planning and Economic Development cite that tourism is the number one private sector industry in the region. Approximately 19.2 million visitors came to the Washington Region in 2000.⁶⁷ Total expenditures on tourism totaled approximately \$10.2 billion that year,⁶⁸ or an average of \$531 per person.

Air traffic – Though this action is being proposed to improve communication in the Washington, DC airspace, there are some additional safety benefits. The separation of air traffic is predicated on knowing the intentions of aircraft operating within the controller’s airspace. The Washington SFRA requires two-way communication, flight plans and operable transponders for pilots to operate in the area. This allows the controllers to know the intentions of all pilots in the area, to monitor the aircraft altitude, and to communicate with each pilot. When a controller knows the intentions of pilots in the sector, and has the ability to communicate with each one, safety is greatly enhanced.

The FAA believes that this rule will reduce the number of times that the U.S. Government might have to intercept unauthorized aircraft. The current restrictions are contained in NOTAMs, which are not as widely disseminated or understood as federal regulations. As the public becomes more aware of these airspace restrictions, we believe the number of careless and inadvertent encroachments of the airspace will be reduced. We do not have any data on the possible reduction in the number of times that the U.S. Government might have to intercept unauthorized aircraft, but believe that a better educated flying public would make fewer critical flying errors.

V. COMPARISON OF COSTS AND BENEFITS

The cost of this rule is estimated to be \$296.60 million over ten years. This cost needs to be compared to the possible unfortunate consequences that could occur if a terrorist attack is carried out against a public facility or congested public

⁶⁷ 2000 Travel Trends - Washington DC Tourism and Travel Corporation, available at <http://www.washington.org/UploadedFiles/VisitorStatistics/TravelTrends.pdf>

⁶⁸ “\$22 Billion In Lost Tourist Dollars,” October 18, 2002 available at <http://www.cbsnews.com/stories/2002/10/21/national/printable526257.shtml>.

assembly area located within National Capital Region. Given the potential catastrophic results from a September 11-type attack on Washington, DC, the benefits of avoiding such results vastly outweigh these costs.

VI. PRELIMINARY REGULATORY FLEXIBILITY DETERMINATION

A. Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation.” To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

For this proposed rule, the small entity group is considered to be small general aviation airports (North American Industry Classification System [NAICS] 488119 – Airport Operations and Terminal Services). The small entity size standards criteria involving airports defines a small airport as one with annual revenues of less than \$5 million. In addition, all privately owned, public-use airports are considered small.

In the FRZ, 41 airports are impacted. Of these, five are public-use – South Capitol Street (09W), College Park (CGS), Potomac/Hyde (VKX), Washington Executive (W32), and Reagan National Airport (DCA). DCA clearly is not a small airport, but the others are. In the DC SFRA, approximately 145 airports are affected. Of these, 23 are public-use, which include the five in the FRZ; of these, all but ADW,

BWI, and IAD are small airports. All the small airports, both public-use and private-use, in the proposed Washington, DC SFRA need to be examined in this regulatory flexibility analysis.

The FAA only has revenue (both pre- and post-DC SFRA) and compliance cost data for the three airports affected by the former SFAR 94 – CGS, VKX, and W32, and so can only do a regulatory flexibility analysis on these airports, based on the effects of the former SFAR 94, and the current combination of TSA’s 49 CFR Part 1562 and FAA’s NOTAM 3/0853. Because the proposal would have a significant impact on two of these three airports, that would trigger the need for a regulatory flexibility analysis if the proposed rule were only dealing with these three airports. However, there are approximately 150 airports within the SFRA that are affected by other provisions of the proposed rule, and the FAA does not know if these other provisions would have a significant impact on a substantial number of all those airports. Accordingly, the FAA prepared a regulatory flexibility analysis, as it believes it important to show the potential impact on these entities for the sake of completeness and to engender comments.

Hence, the focus of the following analysis will not be the proposed rule, but rather, a subsection of the proposed rule – the impact of the former SFAR 94. The FAA calls for comments containing revenue (both pre- and post-DC SFRA) and compliance cost data for these other airports within the DC SFRA/FRZ as well as any other pertinent information of the potential burden of these proposal on small airports; the FAA requests that such data be accompanied with full documentation.

As discussed above, three airports are directly affected. The College Park Airport is owned and partially funded by two Maryland Counties, Montgomery and Prince George’s. The 2000 census discloses that the combined population of the two counties is approximately 1.7 million. As such, the College Park Airport is not a small entity. Both the Potomac Airfield Airport and Washington Executive Airport/Hyde Field are privately owned and considered small in this analysis.

Small general aviation airports are not required to have security programs; only those airports that have scheduled service are required to have such a program. Air carrier airports are funded from tax revenues and generally have greater aviation traffic activity than general aviation airports and airports without scheduled service. By and large, the two small airports subject to the former SFAR 94 are not supported from tax revenues, as the revenues that sustain the two airports are derived from the pilots who use the airports; however, these airports received Airport Improvement Project (AIP) funds for the costs of operating and for security enhancements due to the special provisions in Aviation and Transportation Security Act (ATSA). The provision lasted for one year, in 2002. Potomac Airfield Airport received about \$150,100, while Washington Executive

Airport/Hyde Field received \$342,3000. Neither airport, of course, can count on these AIP funds, rather than or in addition to the revenues they collect from pilots, to sustain them in the future.

The estimated annual cost of compliance, based on known costs and revenues for the Washington Executive Airport is \$291,600 and the burden on the Potomac Airfield Airport is \$221,400;⁶⁹ they increase to \$334,000 and \$252,900 when the anticipated airport revenue losses are increased by 20%, as discussed above. These costs are considered burdensome because they are well in excess of one percent of the median annual revenue of small airport operators (one percent of the annual median revenue for small operators is \$28,000). If these were the only small airports within the DC SFRA/FRZ, the FAA would have determined that the rule would have a significant economic impact on a substantial number of small entities. However, without similar information from the other small airports, the FAA is unable to make such a determination, but, as mentioned above, believes it important to show the potential impact on these entities for the sake of completeness, and thus, performed a regulatory flexibility analysis only on a subsection of the proposed rule – those airports impacted by the former SFAR 94.

B. Regulatory Flexibility Analysis

Under section 603 (b) of the RFA (as amended), each regulatory flexibility analysis is required to address the following points: (1) reasons why the FAA considered the rule, (2) the objectives and legal basis of the rule, (3) the kind and number of small entities to which the rule will apply, (4) the reporting, record keeping, and other compliance requirements of the rule, and (5) all Federal rules that may duplicate, overlap, or conflict with the rule. The FAA will perform an analysis for the two small airports impacted by this rule.

Reasons why the FAA considered the rule—The catastrophic events of September 11, 2001 introduced the awareness that terrorists will use civil aviation aircraft as a missile or possible carriers of biological, chemical, radioactive and/or conventional weaponry against civilian targets. Some airports affected by this proposed rule are located within a few minutes flight from vital civilian and military control facilities. This proposed rule recognizes that the terrorist threat is

⁶⁹ As discussed above, the revenue losses and security costs are broken down between those incurred by the airports and those incurred by other entities. The costs applicable here are only those incurred by these airports. For Potomac, revenue losses are \$157,600 (Table 16) and security costs are \$63,800, summing to \$221,400. For Washington Executive/Hyde, revenue losses are estimated at \$212,100 and are calculated by summing \$69,200 (Table 18) with the average of airport-only costs from Tables 14 (College Park) and 16 (Potomac) excluding fuel and landing fees. These revenue losses are \$209,300 and \$69,200, respectively, resulting in an average of \$142,900. With security costs at \$79,500, the cost of compliance sums to \$291,600.

changing and growing and that extraordinary steps must be taken to safeguard the Washington, DC Metropolitan Area.

The objectives and legal basis for the rule—The objective of the rule is to combine all the airspace restrictions within the Washington, DC Metropolitan Area into one regulation. This effort is to assist DHS and DoD in their efforts to enhance security protection of vital national assets located within the National Capital Region. The legal basis for the rule is found in 49 U.S.C. 40103 et seq. The FAA and DHS must consider, as a matter of policy, maintaining and enhancing safety and security in air commerce as its highest priorities (49 U.S.C. 40101 (d)).

The kind and number of small entities to which the rule will apply—As noted above, the FAA only has enough data on two small airports, Potomac and Washington Executive/Hyde to perform this analysis; however, the proposed rule potentially applies to all pilots, regardless of where they are based, if they operate within the DC SFRA/FRZ. Private pilots and some pilots who occasionally operate their aircraft for business and pleasure reasons use these airports.

The reporting, record keeping, and other compliance requirements of the rule—As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted a copy of these sections to the Office of Management and Budget (OMB) for its review:

-- Paragraph 4. Airport Security procedures, Subparagraph (a) requires the two airports to modify or submit the security procedures program at the request of the DHS as well as maintain their security program. The cost and time required for these activities is estimated to be \$680 at Potomac, taking 16 hours, and \$607 at Washington Executive/Hyde, taking 15 hours for a total of \$1,287, taking 31 hours.

All Federal rules that may duplicate, overlap, or conflict with the rule—The FAA is unaware of any Federal rules that duplicate, overlap, or conflict with this rule.

OTHER CONSIDERATIONS

Affordability analysis—The extent to which a small airport can “afford” the cost of compliance is directly related on the availability of income and earnings. The small airports subject to this rule generate income to sustain their operations from landing fees, tie-down charges, rent and other compensation paid by airport tenants, fuel sales, flight school instruction, sightseeing rides, aircraft rentals, and miscellaneous local sales. All of these sources of income are influenced directly by the number of operations at the airport. The reduction in operations experienced by the airports as a consequence of the flight restrictions in place

before and after the former SFAR 94 became effective is significant. Even if there is an increase in operations as a result of the recent TSA rule, the FAA believes that this increase would be minimal, leading to the same conclusion that the overall reduction in operations is significant.

The decrease in operations corresponds to the decline in working capital at the airports. Working capital is defined as the excess of current assets over current liabilities. The financial strength and viability of a business entity's financial strength is substantially influenced by its working capital position and its ability to meet its short-term liabilities. As fixed-base operators and pilots have relocated to other airfield, revenues have continued to decline. Besides laying-off staff, without other sources of revenue, the airports are unable to implement offsetting cost-saving efficiencies that could ameliorate the loss of income.

At this time, there is no comprehensive source of information available that would account for a total financial picture of these airports. There is also no information about the airports' ability to obtain credit. The only evidence is limited to the fact that the airport and its tenants generated revenues in previous years and were able to pay their taxes. As such, it can be assumed that these small entities were generating sufficient revenues to meet tax and other obligations; however, the costs of complying with the former SFAR 94 are very high relative to the current revenues reported by the airports. As discussed for both airports, the security costs alone are more than 20% of the projected revenues, \$63,800 out of total airport revenue of \$259,000 at Potomac and \$79,500 out of total airport revenue of \$291,300 at Washington Executive Airport/Hyde Field.

The financial impact of the flight restrictions in place before the effective date of the former SFAR 94 is significant relative to the size of these airports. The reopening of the airports has not improved the financial posture of the airports. The May 17, 2002 temporary closing again of Washington Executive Airport/Hyde Field imperiled the survival of this airport. The complex and burdensome flight restrictions now in place are intimidating to many private pilots and have caused them to relocate to other airports. On the basis of the above, the FAA considers that the rule would threaten the viability of the impacted airports. Even with the potential for an increase in revenue as a result of transient operations, the FAA still considers that the rule would impact the viability of the affected airports.

Competitiveness analysis—Airports located further away from the DCA VOR/DME are not subject to the security provisions and air traffic restrictions now in effect for Potomac Airfield Airport and Washington Executive Airport/Hyde Field. These airports offer a convenient alternative location for pilots seeking to avoid costly operational restrictions and security requirements. The availability of these airports has contributed to reducing the competitiveness

of the affected airports. Pilots flying into the airports covered by this NPRM face additional costs in filing flight plans which they would not have at alternative airport; these costs sum to \$368,500 annually at Potomac and \$596,500 annually at Washington Executive Airport/Hyde Field, both averaging \$35.10 per operation. The advent of transient flights has the potential to increase these total costs to pilots.

Business Closure—The FAA is unable to determine with certainty whether the two small airports significantly impacted by this rule would remain open. On the basis of the Affordability Analysis provided above, the FAA considers that the rule would impact the viability of these affected airports. Even with the addition of transient operations, the FAA still reaches the same conclusion.

ALTERNATIVES

The objective of the rule is to combine all the airspace restrictions within the Washington, DC Metropolitan Area into one regulation. This effort is to assist DHS and DoD in their efforts to enhance security protection of vital national assets located within the National Capital Region. The fact that provisions of former SFAR 94 are still in effect, in TSA's interim final rule and the FAA's NOTAM 3/0853, and that the existing Washington, DC Metropolitan Area ADIZ/FRZ is also in effect reduces the number of options that can be examined in this analysis. The government believes believe that any substantial changes to the security requirements or air traffic restrictions would be the equivalent of revoking the rule and increasing the vulnerability of the National Capital Region. Thus, the FAA has examined the following four alternatives.

Alternative 1 - Rescind the TSA's 49 CFR Part 1562, FAA's NOTAM 3/0853, and the DC SFRA/FRZ immediately—This alternative would provide immediate relief to these airports by removing security provisions and restoring former air traffic control procedures and airspace configurations. Implementation of this alternative would facilitate the return of pilots who, for the sake of operating simplicity and reduced flying costs, relocated to other airports. This would be the least costly option. The FAA believes that the threat of terrorists using aircraft as missiles must be guarded against, and this option would not adequately achieve that goal.

Conclusion: Rescinding these actions would increase the vulnerability and diminish the level of protection now in place to safeguard vital national assets located within the National Capital Region. This alternative is rejected because it would compromise the security of vital national assets and increase their vulnerability.

Alternative 2 - Codify existing flight restrictions over the Washington, DC Metropolitan Area—Under this alternative, the government would maintain the present security and air traffic operational restrictions. The annual cost of compliance for the affected airports totals \$513,000;⁷⁰ they increase to \$585,400 when the anticipated airport revenue losses are increased by 20%. These costs could change marginally with the advent of transient operations. The proposed rule enhances security measures in place that would require any aircraft operating to and from the affected airports and transiting the proposed SFRA to be properly identified and cleared.

Conclusion: This alternative is preferred because it balances the security concerns against the impact on the three airports and related businesses.

Alternative 3 – Close all airports within the proposed DC SFRA permanently – Under this alternative, the government would completely close these airports to all aviation operations. This would effectively close all aviation-related businesses in the area. They would be forced to move to other airports or close their businesses permanently. All pilots who have aircraft permanently based at the airports would also be forced to move their aircraft to other locations, thereby imposing moving costs, including new hangar, tie-down, storage fees, etc. Workers at the airports would be forced to seek employment at one of the other general aviation airports in the Washington Metro area. This is the most costly option.

Conclusion: This alternative is not preferred because it causes the greatest financial burden on the airports, their tenants and aviation-related businesses, and individuals who work or store aircraft at the affected airports.

Alternative 4 – Retain the FRZ, eliminate the ADIZ – Under this proposal, airspace in the Washington DC Metropolitan area with flight restrictions would be reduced considerably. The only flight restrictions remaining would be within approximately 15 miles of the DCA VOR, restricting all aircraft operations except part 121 operators, DOD operations, law enforcement operations and authorized Emergency Medical Services operations. This removes the requirement for filing flight plans for aircraft operators in airspace outside the FRZ, resulting in reduced pilot and controller workload. This alternative would provide relief to some general aviation operators that would operate in the ADIZ area and not into the FRZ. It would restore former air traffic control procedures and air space configurations for some of the area. Implementation of this alternative may reduce costs for some general aviation operators in that they would not have to comply with many of the current ADIZ restrictions.

⁷⁰ This is the sum of \$221,400 at Potomac and \$291,600 at Washington Executive Airport/Hyde Field.

Conclusion: This alternative is not preferred because it does not meet the requirements of those security agencies responsible for the safety of the Washington DC Metropolitan area.

VII. INTERNATIONAL TRADE IMPACT STATEMENT

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and where appropriate, that they be the basis for U.S. standards.

In accordance with the above statute and policy, the FAA has assessed the potential effect of this proposed rule and has determined that it would have only a domestic impact and therefore no effect on any trade-sensitive activity.

VIII. UNFUNDED MANDATES REFORM ACT

The Unfunded Mandates Reform Act of 1995 (the Act) is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments.

Title II of the Act requires that each Federal agency, to the extent permitted by law, prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100.0 million or more (adjusted annually for inflation) in any one year; such a mandate is deemed to be a “significant regulatory action.” The FAA currently uses an inflation-adjusted value of \$120.7 million in lieu of \$100 million.

This final rule does not contain a significant federal intergovernmental/private sector mandate. Therefore, the requirements of Title II do not apply.

APPENDIX

Table A-1 – Additional Air Traffic Burden due to the DC SFRA/FRZ

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Totals
Staffing											
Potomac TRACON	\$3,640,000	\$3,640,000	\$3,640,000	\$3,640,000	\$3,640,000	\$3,780,000	\$3,780,000	\$3,920,000	\$3,920,000	\$3,920,000	\$37,520,000
Manassas ATCT	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$1,200,000
Automated Flight Service Stations											
Leesburg AFSS	\$1,080,000	\$1,080,000	\$1,080,000	\$1,080,000	\$1,080,000	\$1,080,000	\$1,080,000	\$1,080,000	\$1,080,000	\$1,080,000	\$10,800,000
Other AFSS's	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$12,600,000
TOTAL Staffing	\$6,100,000	\$6,100,000	\$6,100,000	\$6,100,000	\$6,100,000	\$6,240,000	\$6,240,000	\$6,380,000	\$6,380,000	\$6,380,000	\$62,120,000
Potomac TRACON - Other costs											
Pilot Deviations	\$524,217	\$530,127	\$536,628	\$543,129	\$549,630	\$556,131	\$562,632	\$569,724	\$576,225	\$583,317	\$5,531,760
Tracks of Interest	\$136,525	\$138,176	\$139,827	\$141,478	\$143,129	\$144,907	\$146,558	\$148,336	\$150,114	\$152,019	\$1,441,069
Enforcement - overtime/staffing	\$9,680,718	\$9,789,858	\$9,909,912	\$10,029,966	\$10,150,020	\$10,270,074	\$10,390,128	\$10,521,096	\$10,641,150	\$10,772,118	\$102,155,040
NSSOU Personnel	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,260,000	\$1,400,000	\$1,400,000	\$1,400,000	\$13,020,000
TOTAL Other costs	\$11,601,460	\$11,718,161	\$11,846,367	\$11,974,573	\$12,102,779	\$12,231,112	\$12,359,318	\$12,639,156	\$12,767,489	\$12,907,454	\$122,147,869
TOTAL COST	\$17,701,460	\$17,818,161	\$17,946,367	\$18,074,573	\$18,202,779	\$18,471,112	\$18,599,318	\$19,019,156	\$19,147,489	\$19,287,454	\$184,267,869
Discount factor	0.9346	0.8734	0.8163	0.7629	0.7130	0.6663	0.6227	0.5820	0.5439	0.5083	
Discounted Cost	\$16,543,421	\$15,563,072	\$14,649,581	\$13,789,005	\$12,978,330	\$12,308,082	\$11,582,720	\$11,069,322	\$10,414,965	\$9,804,764	\$128,703,262